

AR27

PHILLIPS PETROLEUM COMPANY  
1981 ANNUAL REPORT





# Stockholder Information

## Annual Meeting

The annual meeting of stockholders will be held at 10 a.m., April 27, 1982, at the company's headquarters in Bartlesville, Okla. Notice of the meeting and proxy material are being sent to all stockholders under separate cover.

## Principal Offices

Bartlesville, Okla. 74004  
630 Fifth Avenue, New York N.Y. 10111  
306 South State Street, Dover, Del. 19901

## Stock Transfer Offices

Manufacturers Hanover Trust Company  
4 New York Plaza  
New York, N.Y. 10015

Montreal Trust Company  
15 King Street West  
Toronto, Ontario, Canada M5H 1B4

## Registrars

Manufacturers Hanover Trust Company  
4 New York Plaza  
New York, N.Y. 10015

Canada Permanent Trust Company  
20 Eglinton Avenue West  
Toronto, Ontario, Canada M4R 2E2

## Selected Subsidiaries

Applied Automation, Inc.  
Phillips Chemical Company  
Phillips Coal Company  
Phillips Driscopipe, Inc.  
Phillips Fibers Corporation  
N.V. Phillips Petroleum Chemicals S.A.  
Phillips Petroleum Company Europe-Africa  
Phillips Petroleum Company Norway  
Phillips Pipe Line Company  
Phillips Puerto Rico Core Inc.  
Philtankers Inc.  
Pier 66 Company  
Sealright Co., Inc.

## Form 10-K

Copies of the company's annual report on Form 10-K as filed with the Securities and Exchange Commission may be obtained by writing to Harvey W. Thompson, Secretary, Phillips Petroleum Company, Bartlesville, Okla. 74004.

Should you have questions about the information in this annual report or about the company, please contact Phillips stockholder relations office in New York City (212/397-9760) or Bartlesville (918/661-5139).



FOURTH QUARTER 1982

# NEWSREPORT

## HIGHLIGHTS

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Oil Company  
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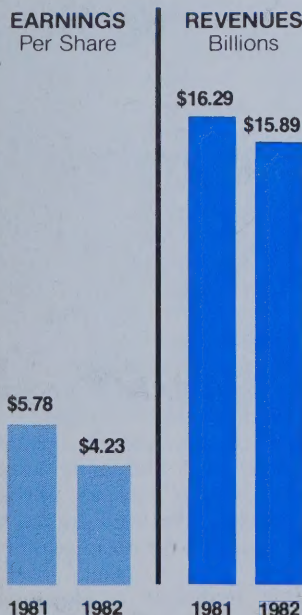
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## AR27

### TWELVE MONTHS



## To The Owners of Phillips Petroleum Company:

Phillips earnings in 1982 were \$646 million, or \$4.23 a share, on revenues of \$15.89 billion.

Net income for the year was down from 1981 when Phillips earned \$879 million, or \$5.78 a share, on revenues of \$16.29 billion.

Phillips 1982 earnings represented a return of 4.1 cents on each dollar of revenue, compared with 5.4 cents in 1981.

For the fourth quarter, net income was \$155 million, or \$1.01 a share, on revenues of \$4.06 billion. This compares with net income of \$186 million, or \$1.23 a share, on revenues of \$4.09 billion in the same period a year ago.

The adoption of new foreign currency translation accounting procedures in 1982 resulted in an additional translation gain of \$40 million for the year, including a \$9 million gain in the fourth quarter. As a result, earnings of the first three quarters will be restated.

Fourth quarter earnings were adversely impacted by a non-recurring provision of \$91 million to cover anticipated losses from the sale, shutdown and curtailment of various petroleum and petrochemical operations, including a \$44 million write-down of the Kansas City refinery which was shut down in August. Earnings in the fourth quarter were also adversely affected \$65 million by higher casualty losses and reserves for future losses in the company's insurance affiliate.

Other factors that adversely affected 1982 earnings were lower worldwide production and prices of crude oil and natural gas liquids and a 25 percent increase in exploration expenses.

On a worldwide basis, Phillips crude oil production for the year was down 8 percent, mainly because of lower production from the Greater Ekofisk Development in the Norwegian North Sea and Indonesia. Worldwide natural gas liquids production was down 2 percent, and natural gas production declined 9 percent, primarily as a result of reduced demand in the United States.

Although petroleum exploration and production earnings were marginally lower, petroleum refining and marketing operations showed a marked improvement for the year, benefiting from lower raw material costs and increased sales volumes. A reduction in petroleum LIFO inventories added \$64 million to earnings, representing an increase of \$50 million over the previous year.

Earnings in the company's gas and gas liquids operations declined for the year, primarily because of lower prices for natural gas liquids.

Chemicals earnings declined significantly, with about one-half of the reduction stemming from write-downs of various operations. Prices for most chemical products were lower and sales volumes were down in several major business lines.

Capital expenditures for the year were \$2.13 billion, down 20 percent from a year ago.

President and  
Chief Operating Officer

Chairman and  
Chief Executive Officer

February 28, 1983





## **Phillips Acquires General American Oil Company of Texas**

General American Oil Company of Texas, a Dallas-based exploration and production company, is being acquired by Phillips in a \$1.14 billion merger. It is the largest acquisition in Phillips history.

The merger results in a substantial increase in Phillips U.S. oil and natural gas production and adds significantly to both Phillips U.S. reserves and undeveloped acreage.

The "friendly" merger plan was announced Jan. 7, when Phillips and General American corporate officers signed merger terms and Mesa Petroleum agreed to drop its takeover bid for General American.

The acquisition arrangements call for an average of \$45 a share to be paid for the shares of General American stock. Phillips has the option to pay for a portion of the shares it will purchase with either cash or securities or a combination of cash and securities. The merger is expected to be completed in early March.

The acquisition of General American increases Phillips U.S. petroleum liquid reserves by 11 percent and raises the company's U.S. oil production by 16 percent. In addition, the merger boosts Phillips U.S. undeveloped acreage by 31 percent.

The fiscal year ending June 30 was a record year for General American, with earnings and revenues at an all-time high. Net income was \$61.5 million, or \$2.42 a share, on total revenues of \$349 million. Assets were \$576 million.

In the most current *Fortune* ranking of the 500 second largest industries in the country, General American ranked in the top 10 in return on sales and assets per employee.

The company has production in most of the major producing onshore regions of the United States and offshore in the Gulf of Mexico and in

Canada. The company has proved reserves of 80 million barrels of liquids (crude oil and natural gas liquids) and 519 billion cubic feet of natural gas in the United States and Canada. Of this, U.S. reserves total 56 million barrels of liquids and 294 billion cubic feet of natural gas. In fiscal 1982, the company's U.S. production was about 18,900 barrels a day of crude oil and natural gas liquids and 114 million cubic feet a day of natural gas.

General American also holds extensive undeveloped acreage. At the end of 1982, the company held 2.1 million net acres in 23 states.

About 30 percent of General American's liquid reserves and 43 percent of its natural gas reserves are located in Canada.

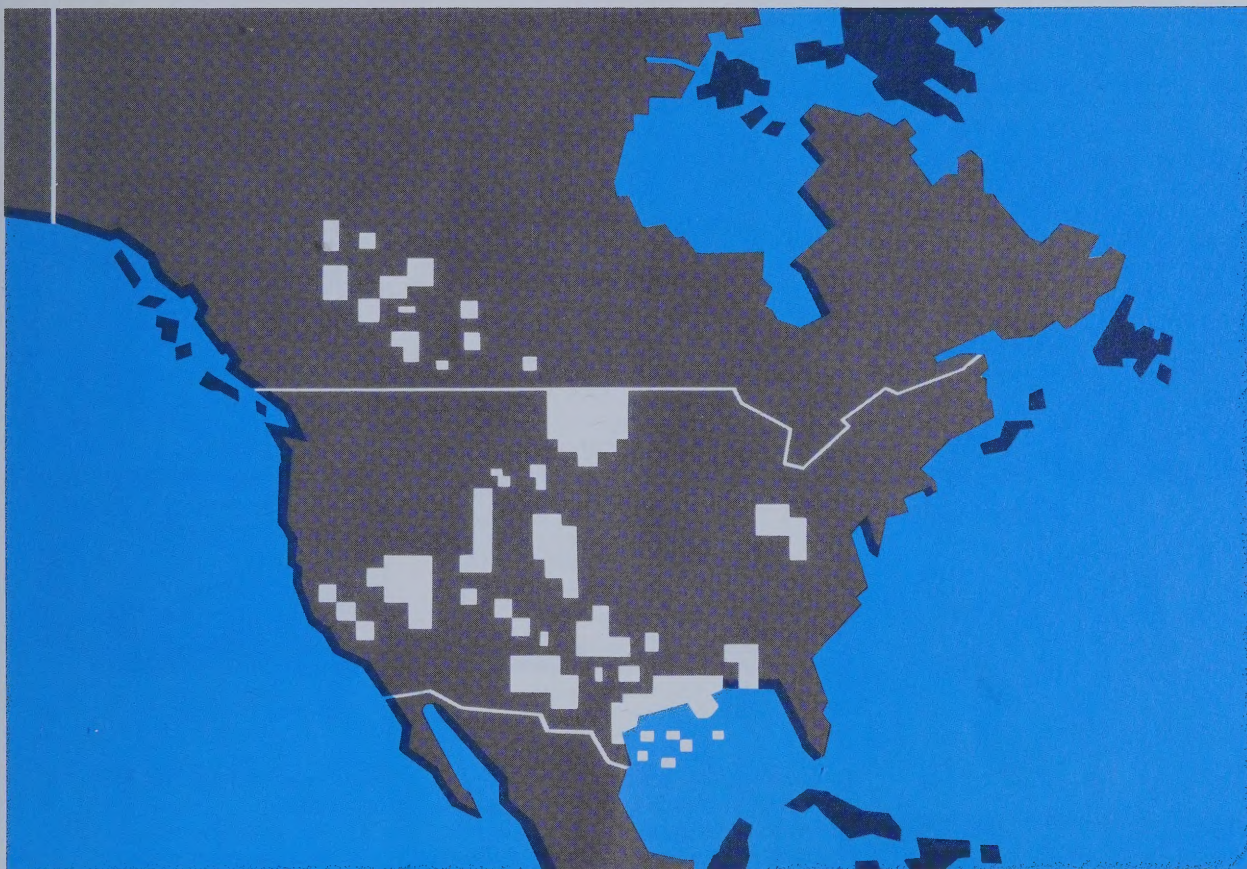
However, General American sharply reduced its Canadian activities in 1982 in response to Canada's national energy policy, which has discouraged exploration investment by non-Canadian companies.

Overseas, General American has an interest in leases in the North Sea. Last year the company participated in both an oil and natural gas discovery offshore the Netherlands. The company also has an interest in five natural gas discoveries in the U.K. sector.

General American is primarily engaged in the exploration for and production of crude oil and natural gas, and those activities contribute more than 90 percent to net income. A subsidiary company, Stockton, Whatley, Davin and Company, is engaged in real estate development and in providing residential and commercial mortgage banking services. Phillips is now studying the best course to follow in regard to the activities of the subsidiary.

General American employs approximately 1,700 people, with 600 involved in oil and gas operations.





General American has exploration and production activities as highlighted on this map of the United States and Canada.



Wm. C. Douce

## A MESSAGE FROM Wm. C. DOUCE

### What the Acquisition Means

The acquisition of General American Oil Company substantially strengthens Phillips and the investment of our stockholders. General American is a financially strong oil company with little debt, a solid production base and excellent petroleum reserves and acreage positions.

When General American approached us late last year about a merger possibility, we were extremely interested because we have long been familiar with the company and its superior record. We are pleased that the merger is being achieved in a friendly transaction satisfactory to both companies and their stockholders.

Our primary reasons for acquiring General American are to increase Phillips U.S. production and strengthen our U.S. reserves.

Phillips U.S. oil and natural gas production — a key factor in earnings — has been declining over the last several years. Production from our recent discoveries offshore Southern California will result in a major improvement in our U.S. oil output, but those discoveries will not be in production until late 1985 or early 1986. General American is an ideal solution to bolstering our reserves and our production between now and the time our offshore California production comes on stream. Also important is General American's significant undeveloped acreage. This acreage — much of it in prime areas — will mean a major boost in Phillips U.S. acreage holdings and offers the potential for additional oil and natural gas production.

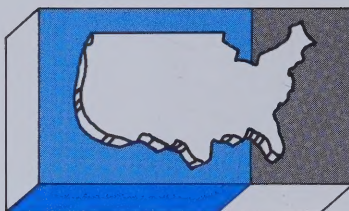
General American also has sizable



- Phillips Petroleum Company
- General American Oil Company of Texas

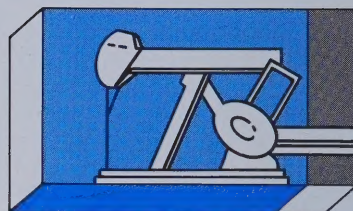
General American's main business is finding and producing oil and natural gas, primarily in the United States and Canada. The acquisition of General American will increase Phillips U.S. petroleum liquid reserves by 11 percent and raise the company's U.S. oil production by 16 percent. Its undeveloped acreage in the United States will boost Phillips U.S. holdings by 31 percent.

#### UNDEVELOPED U.S. ACREAGE



■ 6.7 Million Acres  
■ 2.1 Million Acres

#### U.S. OIL PRODUCTION



■ 112,000 Barrels a Day  
■ 17,600 Barrels a Day

#### PROVED U.S. LIQUID RESERVES



■ 492 Million Barrels  
■ 56 Million Barrels

#### NET INCOME



■ \$646 Million  
■ \$61.5 Million

reserves and undeveloped acreage in Canada. Phillips interest in Canadian oil and natural gas development has decreased in recent years because that country's energy policies have seriously impaired the profitability of operations there. In the months ahead, we will be working with General American personnel to examine rigorously the potential of the Canadian reserves and acreage that are being obtained in this merger.

The total cost of acquiring all General American shares will be about \$1.14 billion. The bulk of the money will come from borrowed funds. Fortunately, because of our careful borrowings in the past and our ongoing economy effort within the company, we will be able to handle this additional debt and still maintain our strong financial position.

In assessing the financial impact of this acquisition on Phillips, several points should be emphasized:

- The acquisition will not place a strain on current capital spending programs for other operations. Naturally, there may be some shifts in how we spend our capital dollars in the future because the acquisition will

make new capital spending opportunities available.

- General American is a solid company with excellent earnings. These earnings will begin contributing to Phillips cash flow immediately and can be used both to retire indebtedness and finance capital programs.

- The acquisition will neither increase nor decrease our continuing emphasis on improving the efficiency of all our operations. Our ongoing belt-tightening program is simply prudent management in view of the tough, competitive conditions that face the industry today and in the future.

Plans are now under way to determine how to most effectively blend General American's operations into Phillips activities. Phillips presently is looking at the possibility of selling the stock or the assets of General American's subsidiary company, Stockon, Whatley, Davin and Company, which is involved in mortgage banking services and real estate.

Summing it up, this is an important acquisition that promises to benefit both Phillips and Phillips stockholders.



## James B. Edwards Joins Phillips Board

James B. Edwards, former secretary of the U.S. Department of Energy and governor of South Carolina, was elected to the Phillips board of directors, effective Jan. 1. Edwards recently became president of the Medical University of South Carolina.

With the election of Edwards, Phillips 16-member board has 11 directors who are not Phillips employees.

Until his appointment at the Medical University of South Carolina in November, Edwards had served as secretary of the Department of Energy for about two years.

Edwards was governor of South

Carolina from 1975 to 1978, having served as a state senator prior to that.

As governor, he was chairman of the subcommittee on nuclear energy of the National Governors Association.

An oral surgeon, Edwards holds degrees from the College of Charleston, the University of Louisville and the University of Pennsylvania.

Edwards is a director of Baker Hospital, Charleston, and the Harry Frank Guggenheim Foundation. He is currently a board member of J. P. Stevens & Co., Inc., and a former director of the First National Bank of South Carolina and the Burris Chemical Company.



**James B. Edwards**

## Phillips Has Oil Discovery Offshore Ivory Coast

Phillips has made a discovery in Block B1 offshore the Republic of Ivory Coast, about 22.5 miles west of the company's Espoir oil field.

The well, known as the B1-5X, flowed oil and gas from two intervals, and gas from another two intervals, during tests. From an interval between 8,568 and 8,588 feet, the well flowed 4,807 barrels a day of 35.5 degree API oil and 3.8 million cubic feet a day of natural gas. The well tested 2,550 barrels a day of 41.5 degree API oil and three million cubic feet a day of gas from another interval between 8,804 and 8,844 feet.

The B1-5X well also tested natural gas flows from two additional intervals: 10.3 million cubic feet a day between 8,480 and 8,510 feet, and 43.5 million cubic feet a day and 911 barrels a day of condensate between 9,224 and 9,452 feet.

The rig has moved to another location in the B1 block.

In late 1982, Phillips also completed two other exploratory wells offshore the Ivory Coast. One of the wells tested small amounts of natural gas and condensate and the other was a dry hole. Neither was drilled in the immediate

area of the Espoir oil field.

The first of these wells, designated the A-8X, is in Block A and is about 43 miles west of the Espoir A-1X discovery well. The other well, the C1-9X, which was a dry hole, was drilled in Block C1, about 16 miles northeast of the Espoir A-1X discovery well.

Phillips and its co-venturers hold three separate production-sharing contracts with the Ivory Coast government to explore and develop more than 2.3 million contiguous acres offshore. The contracts cover Blocks A-B, B1 and C1. Initial interests in the three contracts of the companies in the group are: Phillips subsidiaries (operator), 57.5 percent; Agip (Africa) Ltd., 22.5 percent; subsidiaries of Sedco, Inc., 10 percent; and Petroci, the national oil company of the Ivory Coast, 10 percent.

Two of the three production-sharing contracts provide an opportunity for Petroci to increase its share of costs and production up to 60 percent in approximately 470,000 acres in Blocks B1 and C1. This would reduce the other companies' interests in that acreage proportionately.



**Worker performs routine maintenance on rig drilling offshore the Republic of Ivory Coast. Phillips and co-venturers recently discovered more oil in these waters.**



## Synthetic Pheromones Could Aid Agriculture

Eleven months ago the U.S. Forest Service, using a small airplane, distributed 56 pounds of a confetti-like material over a 400-acre area of the Ponderosa pine forests. These forests cover a large portion of Idaho, Washington, Oregon and northern California, and are one of the nation's prime logging areas.

The confetti-like material dropped on this area was absorbed with a synthetic, petroleum-based pheromone produced by Phillips. The purpose of the exercise was to use synthetic pheromones to rid the forest of a one- to three-inch-long brown worm that each year stunts the growth of hundreds of Ponderosa pines, ruining them for logging.

Pheromones are the scents that are released naturally by all animals and insects. One of their main functions is to bring insects together for mating; but by producing synthetic pheromones, scientists hope that the mating instinct will result in fewer — not more — of the insects that do millions of dollars of damage to America's crops each year.

At a pilot plant in Bartlesville, Phillips is producing one of the mating scents used in the Ponderosa test site. This chemical imitates the mating scent of the female Western Pineshoot borer, an enemy of the Ponderosa pine. During the spring mating season, at the same time the female borer emits her

mating pheromone, the manmade chemical is distributed by plane — about 5 grams per acre — over the infested area. The chemical is time-released to be effective during the entire mating season, which lasts from two weeks to two months. The air becomes so saturated with the artificial scent that the male borer is totally disoriented. The antenna sensory system is blocked with the false scent, and mating behavior is so disrupted that the male borer doesn't know which way to go to find his female partner.

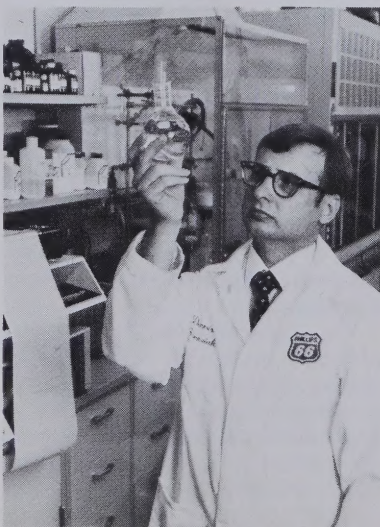
For the past two years, Phillips, the U.S. Forest Service and other companies have been testing the manmade pheromone. To date, tests show that reduced borer mating leads to 85 percent less tree damage.

Phillips developed the process for preparing the pheromone as an offshoot of its research work in catalysts. Phillips is currently the only U.S. commercial producer of this type chemical, and many believe that pheromone research will lead to a new specialty chemicals industry that may eventually be used in most agricultural crops.

There are numerous advantages to using artificial pheromones for pest control. For one, they eliminate the use of sometimes environmentally harmful insecticides and pesticides, which can also produce immunities in pests, or kill off natural predators of the pest. Another advantage is that each insect has its own distinct set of pheromones, and each has a different chemical composition. Therefore, farmers can control a particular crop pest without disturbing other beneficial insect and animal life.

Since 1959 more than 600 insect pheromones have been identified. The chemical industry is now working to perfect synthetic pheromones for the most damaging pests. For instance, cotton growers spend \$1 billion annually on insecticides to reduce insect populations. Consequently, in addition to research aimed at the Pineshoot borer, Phillips is working toward developing synthetic pheromones that will help control insects that attack cotton, a major agricultural crop, and artichokes, a low-volume but high-cash-value crop.

**A research scientist examines a beaker of synthetic pheromones, a petroleum-based chemical that could save crops from damaging insects.**





## Silas Urges Prompt Natural Gas Decontrol

The federal government should remove itself from the business of deciding who should get natural gas and how much it should cost, C. J. Silas, Phillips president and chief operating officer, told an Atlanta business club in January. Silas said three decades of government interference in the natural gas market had resulted in "a bureaucratic muddle."

"The time for action on natural gas decontrol is now," Silas said. "We now have a bewildering hodgepodge of regulations and controls that almost defy understanding."

Silas said the government regulations had created more than 25 different price categories for natural gas and actually encouraged production of more expensive types of gas.

"Because of this, homeowners in different parts of the country pay vastly different amounts for gas," he said. "Businesses are also affected. Two companies with equally efficient operations can have greatly different competitive positions for no other reason than the way government pricing rules affect their gas supplier," he said.

Silas said that in some areas federal controls were causing large increases in home gas bills by discouraging industrial use of the fuel.

"When large gas users desert the system, then there are fewer customers left to pay the fixed costs of the pipelines and the utilities. So gas bills go up and this may drive more customers out of the market. It's a vicious circle.

"We've all experienced the benefits of oil decontrol . . . Gasoline prices have decreased since decontrol in January of 1981, rather than increasing as opponents of oil decontrol predicted they would," Silas said.

"I'm confident that the open-market approach . . . will work with natural gas as well," Silas added.

"You've probably heard shocking predictions that your gas bill might double or triple if gas prices were decontrolled. In fact, a recent study by the Reagan Administration says home gas bills would only go up about 5 percent," Silas said.

"We feel total decontrol is the best plan for the greatest number of people," he added.

### OPERATING HIGHLIGHTS (liquids in thousands of barrels per day)

	Three Months Ended December 31		Twelve Months Ended December 31	
	1982	1981	1982	1981
United States:				
Crude oil produced	112	116	112	116
Natural gas liquids produced	149	155	148	152
Natural gas produced (net millions of cubic feet daily)	769	896	789	899
Crude oil refined	250	275	277	285
Petroleum products sold	483	475	461	446
Europe-Africa:				
Crude oil produced	107	117	112	125
Natural gas liquids produced	12	10	12	11
Natural gas produced (net millions of cubic feet daily)	452	516	471	488
Petroleum products sold	49	50	47	48
Other areas:				
Crude oil produced	1	2	1	5
Natural gas produced (net millions of cubic feet daily)	—	—	—	1
Petroleum products sold	5	9	5	7





A fleet of seismic vibration trucks, known as thumpers, travel toward an area of Thailand where Phillips is conducting seismic work. The trucks set up seismic waves in the earth by slamming

a heavy weight onto the ground's surface. These seismic waves are then analyzed to determine the geology of the area. Phillips is doing seismic work on a 6.3 million-acre area of the country.

PHILLIPS PETROLEUM COMPANY  
BARTLESVILLE, OKLAHOMA 74004

MISS ALMA L PAGE  
1492 DAVENPORT ROAD  
TORONTO ONT M6H 2H8 CANADA





## Corporate Profile

Phillips is engaged in petroleum exploration and production on a worldwide basis, and petroleum marketing and refining in the United States. The company produces and distributes chemicals in the United States and has production facilities or sales offices in 27 other countries. Since the early 1970s, the company has been developing businesses in other energy fields, including coal, oil shale and geothermal power. The company's operating activities are organized in five groups: Exploration and Production, Gas and Gas Liquids, Minerals, Petroleum Products and Chemicals. The operations of each of these groups are summarized in individual sections of this report.

At the end of 1981, Phillips employed 34,500 people, had 120,400 shareholders and assets of \$11.3 billion. The company's products and processes were licensed in 29 countries.

Phillips is headquartered in Bartlesville, Okla., where the company was founded in 1917.

### About the Cover

Wrestling with one of the largest subsea wellheads made, a worker helps lower the wellhead onto the ocean floor at the site of the company's oil discovery offshore the Republic of the Ivory Coast. In the next few months, three similar wellheads, each the height of a three-story building, will be put in place so that crude oil production can begin in the area in late 1982.

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## Highlights

### Net Income (Millions of Dollars)

1981	\$ 879	
1980	1,070	
1979	891	
1978*	718	
1977	531	

\*Includes net income of \$170 million from sale of Pacific Petroleum Ltd. stock.

	Millions of Dollars Except as Indicated		
	1981	1980	1979
<b>Financial</b>			
Total revenues	\$ 16,288	13,713	9,745
Net income	\$ 879	1,070	891
Net income per average share outstanding	\$ 5.78	7.01	5.77
Net income from each dollar of revenue	5.4¢	7.8	9.1
Total taxes charged to income (see Note 9 of notes to financial statements)	\$ 2,441	2,473	1,395
Dividends paid	\$ 335	275	208
Dividends per share	\$ 2.20	1.80	1.35
Average shares outstanding (in thousands)	152,181	152,670	154,427
Capital expenditures	\$ 2,664	1,666	1,454
Total assets at year-end	\$ 11,264	9,844	8,519

	Net Thousands of Barrels Daily		
<b>Operating</b>			
Crude oil produced			
United States	116	120	121
Outside United States	130	169	167
Natural gas liquids produced	163	163	148
Total liquids produced	409	452	436
Crude oil refined	285	262	287
Petroleum products sold	501	509	508

	Net Millions of Cubic Feet Daily		
Natural gas produced	1,388	1,497	1,558

“Phillips,” “the company,” “we” and “our” are used interchangeably in this report to refer to the business of Phillips Petroleum Company and its consolidated subsidiaries. Where reference is made to a particular company, it is wholly owned unless otherwise stated. The company’s consolidation policy is to include in financial statements the accounts of companies in which more than 50 percent interest is held, except for an insurance company and a credit company.

Marlex, Rytan, K-Resin, Poly Slik, Ultrakan, Garden Scene, Dura Craft and Triolefin are trademarks for the company’s products and processes named in this report.



## To the Owners:



W. F. Martin



Wm. C. Douce



C. J. Silas

*On April 1, Wm. C. Douce becomes chairman and chief executive officer, and C. J. Silas becomes president and chief operating officer. W. F. Martin retires March 31 upon reaching retirement age.*

Phillips remained one of the nation's most profitable corporations in 1981, although our earnings fell below those of the previous year. Our earnings were lower in part because of general economic factors which affected the entire industry. Demand for petroleum has weakened and prices have declined. At the same time, the cost of finding and developing petroleum has continued to rise at a rate well above inflation. Phillips financial performance in 1981 was also affected by lower production of crude oil and natural gas, particularly overseas.

Earnings for the year amounted to \$879 million, or \$5.78 a share, compared with 1980 earnings of \$1.07 billion, or \$7.01 a share. The 18 percent earnings decrease in 1981 contrasts with a 19 percent increase in revenues. Total revenues reached a record \$16.29 billion in 1981, compared with \$13.71 billion the previous year. This earnings decline, in spite of increased revenues, clearly illustrates how rising raw material and operating costs—plus new taxes such as the windfall profits tax—have narrowed profit margins in most operations. The company's overall profit from each dollar of revenue shrank from nearly eight cents in 1980 to about five and a half cents in 1981.

In order to maintain earnings at the highest possible level, we have been placing additional emphasis on evaluating the profit potential of each of our operations. The objective of this rigorous review is to reduce costs and concentrate our resources on those enterprises which promise the greatest return. At the same time, we are continuing a major effort to enlarge our resource base in petroleum liquids and natural gas and to bring new reserves into production as soon as possible. This effort is essential for long-term earnings growth, although its high costs have a substantial impact on current earnings.

### Evaluating Profit Potential

Efforts continued in 1981 to make our refining, transportation and marketing operations more efficient and competitive. During the year the new units at our enlarged and modernized Sweeny, Texas, refinery went into operation, while construction progress was made on a similar modernization project at our refinery in Borger, Texas. These projects are designed to increase margins by allowing the conversion of lower cost, heavier crude oils into high-value products. As part of an effort to concentrate our refining and



marketing operations in areas with the greatest growth potential, we sold the Great Falls, Mont., refinery and withdrew from the markets it served. We also announced on March 9, 1982, plans to close our refinery in Kansas City in August, unless a buyer can be found before that time. These actions were taken in response to declining demand for petroleum products, a trend which is causing a reduction in refining capacity throughout the industry. The marketing of petroleum products will be increasingly competitive in the years ahead. Vigorous and imaginative marketing efforts will be required to maintain profitability in a shrinking overall market.

In seeking greater profitability from our chemicals activities, we expanded operations in selected business lines during 1981. A new plastic pipe plant was opened near Montreal, and a petrosulfur compound plant began operation in Tessenderlo, Belgium. We completed work on a major expansion of the Ryton plastic plant in Borger and increased capacity at our Adams Terminal polyethylene plant to 1.5 billion pounds a year. We eliminated some unprofitable assets by closing a carbon black plant in Toledo, Ohio, and a plastic products facility in Cambridge, Ohio.

During 1981, we continued to strengthen our gas and gas liquids operations, which have consistently been a major earnings contributor. These operations accounted for 37 percent of the company's net income in 1981, up from 31 percent in 1980 as a result of both higher sales volumes and improved prices. Several new natural gas liquids extraction plants were completed during the year and our gas gathering systems were expanded.

Phillips also continued its efforts to develop other energy resources, some of which we expect to be generating revenue by the mid-1980s. In coal operations, emphasis has now shifted to development of our sizable resources. During 1981 we received state and federal permits for construction of the first of two lignite mines planned in northwest Louisiana. We have also begun development of our geothermal resources. In 1981 the first small-scale generating facilities were installed at our Roosevelt Hot Springs geothermal site in southwestern Utah.

While we remain encouraged by strong market interest in both lignite and geothermal power,

softening demand and weak prices for uranium have required us to place our uranium program on a standby status. During the year, we halted all uranium exploration activity and closed for the time being our mine in northwestern New Mexico.

### Building for Long-Term Growth


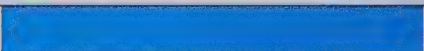



Petroleum liquids and natural gas reserves, located in secure areas of the world, will serve as the foundation for future corporate growth. Today, most of the company's production is derived from reserves discovered at least a decade ago. The natural decline of these fields was largely responsible for the 15 percent drop in crude oil production in 1981 and the 7 percent decrease in natural gas output. But exploratory work of the last several years is now bearing results.

In 1981 Phillips and its co-venturers discovered oil in the Santa Barbara Channel and initial work to develop the field is now under way. The field is adjacent to a number of new leases we acquired off the California coast during the year. Phillips spent approximately \$600 million for its interest in these promising new leases, which cover more than 75 square miles in the Santa Maria Basin.

Exploration activity continued in other high-potential areas of the United States as well. Our efforts were concentrated primarily in the Rocky Mountain Overthrust Belt, the Santa Barbara Channel and the Austin Chalk Trend in Texas. In all, Phillips drilled or participated in 65 U.S. exploratory wells in 1981, up 103 percent from 1980. This activity resulted in 28 discoveries during the year.

Phillips also continued its efforts to expand

### Net Income Per Share

1981	\$5.78	
1980	7.01	
1979	5.77	
1978	4.66	
1977	3.46	



production of petroleum liquids and natural gas outside the United States. During the year we conducted exploration and production activities in 22 nations.

One promising area is in the Republic of the Ivory Coast, where we have discovered oil and gas. We have launched an early development program off the coast of this West African nation, with oil production slated to begin later this year. Exploratory and development drilling is continuing.

We are also active in the United Kingdom sector of the North Sea. A development program for the Maureen field off the coast of Scotland is well under way, with our first production expected late in 1983.

The Greater Ekofisk Development in the Norwegian North Sea accounts for about 30 percent of the company's total energy production. Although production from Ekofisk peaked in 1980, this offshore area will be making a substantial contribution to Phillips crude oil and natural gas production for years to come. A preliminary waterflood project now under evaluation could lead to additional oil recovery beyond current estimates.

Phillips long-term commitment to energy development is reflected in its capital spending program. Capital expenditures were a record \$2.66 billion in 1981, dominated by the \$600 million Santa Maria Basin lease purchases. A capital expenditure budget of approximately \$2 billion has been approved for 1982, with more than two-thirds of the expenditures directed toward energy development.

## Looking Ahead

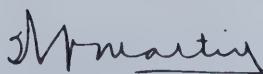
For the remainder of 1982 and into 1983 we expect that crude oil supplies industrywide will be adequate.

Oil prices, which have been declining, are not expected to strengthen during the next 12 months. This assumes, of course, that there is no serious disruption in supplies from the Middle East.

We also expect the demand for petroleum products to remain weak, in part because of continued conservation efforts and in part because of slow economic activity throughout the world.

Some steps have been taken to revitalize the U.S. economy, but much remains to be done. Federal deficits are continuing to increase. The great momentum in government spending, which has built up over the past 10 years, has yet to be slowed, and our nation continues to live far beyond its means. Inflation has moderated somewhat, but is still eroding consumer buying power and discouraging savings. High interest rates are restraining expansion and slowing the pace of business activity, and layoffs and cutbacks are driving up the unemployment rate. These are difficult problems, and working out the solutions will not be easy. It will require determined effort and sacrifice from all of us. But with a unified effort on the part of government, private industry and the American people, these challenges can be met and our nation's economy restored to health.

For the Board of Directors,




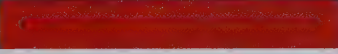
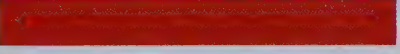


Chairman



President and  
Chief Executive Officer

March 23, 1982

## Profit from Each Dollar of Revenue

1981	5.4¢	
1980	7.8	
1979	9.1	
1978	9.7	
1977	8.3	



## Exploration and Production

The primary thrust of Phillips continues to be exploring for and developing petroleum resources. The company's search for new reserves of petroleum is concentrated in the United States, Western Europe, the Far East and West Africa.

Net income from Exploration and Production was \$430 million in 1981, compared with \$536 million in 1980. Part of the decline resulted from higher exploration costs associated with evaluating the company's undeveloped acreage. Another factor in lower earnings was a decline in the company's worldwide crude oil and natural gas production, brought on primarily by lower output from the Greater Ekofisk Development in the Norwegian North Sea. Crude oil production was down 15 percent from 1980, and natural gas production was down 7 percent.

U.S. and foreign taxes also continued to affect earnings adversely. In 1981, 79 cents out of every dollar of Exploration and Production's pretax income went for income taxes, compared with 78 cents in 1980. In Norway, the company's income taxes on its Norwegian operations were \$1.2 billion in 1981. The U.S. crude oil excise tax—or the so-called windfall profits tax—amounted to \$409 million.

In 1981 petroleum exploration and production activities extended to 22 nations. Because of the

company's intensified exploration program, worldwide petroleum exploration expenses rose 9 percent in 1981 to \$492 million. Of this, dry hole costs amounted to \$198 million, up 8 percent from 1980.

Phillips drilled or participated in 139 exploratory wells worldwide, of which 61 were discoveries. This high success rate was due to shallow oil or natural gas discoveries made while evaluating oil sands acreage in Canada. Principal discoveries were in the Santa Barbara Channel of California, the Williston Basin in Montana, the Powder River Basin in Wyoming and the Austin Chalk Trend in Texas. The company also participated in 75 exploratory wells through farmout arrangements.

### Reserves

Phillips estimated worldwide proved reserves of crude oil, condensate and natural gas liquids decreased 10 percent to 916 million barrels. Worldwide natural gas reserves totaled 6.77 trillion cubic feet, about the same as last year.

Year-end estimates of proved reserves are based on then current reservoir information, technology and economics. Such reserves, however, cannot be measured precisely. Adjustments are made to reserve estimates to reflect changes in economic conditions,



*A drillship probes beneath the waters of Southern California's Santa Barbara Channel, where Phillips and co-venturers made an oil discovery in 1981. The group spent \$1.2 billion to acquire leases north of the discovery, including one adjacent tract costing \$333.6 million, the highest amount ever paid for a single lease.*



results of drilling and production and technical re-evaluation of reservoirs.

### Prices and Revenues

Average realized prices for crude oil and natural gas were higher in 1981 than in 1980. In January 1981, President Reagan lifted remaining price controls on U.S. crude oil and ended a phased decontrol program that began in 1979. In February 1981, Phillips average price for U.S. crude oil rose 29 percent, partly as a result of decontrol. Further price rises, however, were restrained by a worldwide surplus of crude oil that caused prices to decline late in the year.

Exploration and Production's revenues from natural

gas in the United States rose 15 percent. Overseas, natural gas revenues were about the same as a year ago.

### United States

The company's U.S. crude oil production decreased 3 percent in 1981, compared with the previous year. Production from the North Slope of Alaska averaged 26,700 barrels a day, the same as last year, and accounted for 23 percent of Phillips total U.S. crude oil production. U.S. natural gas production was down 5 percent, compared with a 12 percent decline reported in 1980.

The company's efforts to stem the decline in U.S. petroleum production is reflected in U.S. capital and exploration expenditures of \$1.22 billion, compared with \$526 million in 1980. The increase was primarily due to acquiring new exploratory acreage in the United States. The company drilled or participated in 959 exploratory and development wells in the United States in 1981, an 18 percent increase from 1980.

In expanding its U.S. acreage, the company paid some \$600 million for 20 federal leases in the Santa Maria Basin off the coast of Southern California. Three additional leases are in litigation. Phillips interests range from 44 to 50 percent. One lease cost Phillips and its co-venturer \$333.6 million, the highest



*Seen from a bird's-eye view, a crew conducts drilling operations offshore in California's Santa Barbara Channel. At the end of the year, Phillips and co-venturers were drilling their eighth well in the area, with additional drilling planned offshore Southern California in 1982.*



*A driller monitors rig floor activity on a drillship operating in the Santa Barbara Channel.*



## Exploration and Production

amount ever paid for a single offshore tract. Phillips plans to drill or participate in eight wells in the Santa Maria Basin in 1982.

Directly south of these new leases is the Point Arguello oil field, discovered in 1981 by Phillips and co-venturers in the Santa Barbara Channel. Phillips has a 40 percent interest. Studies are now under way preliminary to the design and engineering of production facilities. At the end of the year, seven wells drilled in the Santa Barbara Channel were being evaluated and an eighth well was under way. Additional drilling is planned in 1982.

Onshore California, Phillips holds 160,000 net acres of leases in the heavy oil area of San Luis Obispo and Monterey counties. The company drilled six wells on the acreage in 1981 and is now evaluating test results. Additional drilling is scheduled in 1982.

In the northwestern United States, Phillips had two oil discoveries in 1981 in the Williston Basin in Montana. Additional drilling is planned in 1982 in order to evaluate the area's potential.

The company also initiated an exploratory and development drilling program in 1981 in the Powder River Basin in Wyoming, which resulted in nine oil wells. An exploration and development program is planned for the area in 1982.



*Grain elevators stand tall on the horizon of central Oklahoma, where oil and agriculture share common ground. This rig, just west of Oklahoma City, is drilling one of more than 100 wells in which Phillips participated in the Sooner state during 1981. Most were development wells.*

Phillips holds more than 4.6 million net acres in the Rocky Mountain Overthrust Belt. In 1981 two unsuccessful wells were drilled in Arizona, one in Utah and one in Idaho. At the end of the year, an exploratory well was being drilled in Utah and another in Idaho.

Phillips improved its acreage position in the Austin Chalk Trend in Texas through farm-in drilling arrangements, resulting in nine oil wells.

In the Gulf of Mexico, the company drilled or participated in five exploratory wells to test the potential of federal leases acquired in 1979 and 1980 off the coast of Texas and Louisiana. To date, results have been unsuccessful. However, more drilling is



*Fresh snowfall covers drilling equipment that will be used by a crew in the Idaho portion of the Rocky Mountain Overthrust Belt. Extending from Canada into Mexico, the Overthrust is one of the most active exploration areas of the country.*



planned. Phillips acquired interests in two new leases in the Gulf of Mexico in 1981.

At the end of the year, the company also was participating in a well in the Georges Bank off the coast of Massachusetts. Phillips has a 24 percent interest in the lease.

In the Beaufort Sea of Alaska, Phillips participated in an exploratory well in 1981 that encountered hydrocarbon-bearing reservoirs. At the end of the year, Phillips was drilling or participating in two exploratory wells in Alaska's Beaufort Sea. Elsewhere in Alaska, the company plans to participate in an onshore well on the North Slope in 1982.

Development drilling and enhanced recovery

projects increased production from existing fields. These mature fields, located primarily onshore, account for most of Phillips domestic production. In 1981, 86 percent of the company's U.S. crude oil production and 78 percent of its U.S. natural gas production came from onshore fields.

Crude oil production resulting from secondary and tertiary recovery methods accounted for 31 percent of the company's U.S. oil production. In secondary recovery, water or gas is injected to force more oil out of a reservoir. Tertiary recovery is a complex and expensive form of enhanced recovery, involving the injection of steam, chemicals or fluids into a formation to help bring oil to the surface. Phillips is the operator



*Phillips engineer Archie Cornelius, right, and an environmental consultant discuss the safeguards Phillips uses to protect natural resources during heavy oil drilling in the San Luis Obispo area of California.*



## Exploration and Production

of nine tertiary projects and is a participant in another 12 projects. Phillips tertiary production in 1981 averaged 3,300 barrels of oil a day.

### Norway

The Greater Ekofisk Development in the Norwegian North Sea will continue to be one of the company's most important petroleum operations for many years. In 1981 Ekofisk accounted for about 30 percent of the company's total energy production.

Production from the seven-field area, which peaked in 1980, has begun its natural decline. Production was further affected in 1981 by a planned maintenance shutdown, which curtailed production for 29 days,

and a workers' strike which halted production for nine days. For the year, crude oil production was down 23 percent from 1980 levels, natural gas liquids were down 12 percent and natural gas was down 9 percent. Phillips has a 37 percent interest in the Greater Ekofisk Development. In 1981 the company's production averaged 100,100 barrels a day of crude oil, 11,300 barrels a day of natural gas liquids and 407 million cubic feet a day of natural gas.

Early in 1981 Phillips began a pilot waterflood project in the Ekofisk field. Results of the program, expected in 1982, will determine the feasibility of a full-scale project which would allow more oil to be recovered from the field.



*On the rocky coast of Scotland, the upper portion of a giant production facility is under construction for the Maureen field in the United Kingdom sector of the North Sea. Phillips plans to begin producing oil from the field in late 1983.*



In other areas offshore Norway, Phillips participated in four exploratory wells, one of which was a natural gas discovery. The discovery is located offshore in the extreme northern part of Norway.

### **United Kingdom**

Phillips moved forward with a development program to bring the Maureen field in the North Sea into production in late 1983. This will be Phillips first crude oil production in the United Kingdom. Because development drilling and construction of production facilities are being conducted simultaneously, peak oil production of 72,000 barrels a day is expected about one year after initial production. Phillips has a 34



*Crewmen prepare pipe for a rig conducting development drilling in the Maureen field, located some 160 miles off the coast of Scotland.*

percent interest in the Maureen field, which is located about 160 miles northeast of Aberdeen, Scotland.

To the northwest of Maureen, Phillips has a 35 percent interest in three discoveries in an area known as the T-Block. Appraisal drilling continued in 1981, and Phillips and its co-venturers continued to evaluate the results for possible development. Recent British tax and depletion policies and high development costs make it uncertain if several U.K. discoveries, including T-Block, can be developed.

Elsewhere in the United Kingdom, Phillips drilled a successful exploratory oil well in the North Sea about 200 miles northeast of Teesside and an unsuccessful exploratory well in the Southwest Approaches, about 180 miles off the southern coast of England.

In 1981 Phillips 19 percent share of production from the Hewett area natural gas fields averaged 81 million cubic feet a day, down 23 percent from 1980.

### **Ivory Coast**

In 1981 Phillips completed the first of four development wells that are part of an early development and production program for the company's oil discovery in the Espoir area offshore the Republic of the Ivory Coast. Production from the four wells is expected to begin in late 1982. In addition to completing the first



*An employee checks waterflood equipment installed in 1981 to determine if more oil can be recovered from the Ekofisk field in the Norwegian North Sea. Results are expected in 1982.*



## Exploration and Production

development well, the company moved ahead with other phases of the early development and production program. At the end of 1981, a jack-up rig was being converted into a portable production platform and a tanker was being outfitted to store crude oil. Under two production-sharing contracts covering the areas in the early development and production program, varying portions of production are allocated to the government of the Republic of the Ivory Coast as its share prior to determining the share which will go to the contracting group. Phillips is operator with 57.5 percent interest in both contracts. One of the production-sharing contracts provides the Republic of the Ivory Coast's national oil company the opportunity to increase its 10 percent share up to a total of 60 percent, reducing the other participants' interests proportionately. The government's share remains at 10 percent under the other production-sharing contract.

In 1981 Phillips drilled six exploratory wells offshore the Republic of the Ivory Coast. Five encountered hydrocarbons, and one was a dry hole. Three of the wells were drilled in the Espoir area, with one considered an oil discovery and two natural gas discoveries. The oil discovery was temporarily abandoned and the other two discoveries were plugged and abandoned. The remaining two exploratory wells

were natural gas discoveries. They were drilled some distance west of the Espoir area and were plugged and abandoned. At the end of 1981, the company was drilling two development wells for the early production program and three exploratory wells, one of which was in the Espoir area. Phillips has 1.9 million net acres offshore the Republic of the Ivory Coast. Exploratory and appraisal drilling, along with the early development and production program, are intended to provide additional information regarding possible further development.

### Nigeria

Development drilling continued in 21 oil fields in Nigeria in which Phillips has a 20 percent interest. Net output averaged 21,300 barrels of oil a day, down 30 percent from 1980. The decline was the result of the worldwide oil surplus and reduced demand for Nigerian crude oil, which is among the world's higher priced crude oils.

### Indonesia

Net production from Indonesia averaged 4,900 barrels of oil a day in 1981, the same as in 1980. During the year, the Indonesian government suspended the company's production and exploration program in a



*A supply boat carrying a subsea wellhead makes its way toward a rig drilling near the company's Ivory Coast oil discovery. At the end of 1981, five rigs were drilling for the Phillips group in waters off the Republic of the Ivory Coast.*



contract area of northeast Kalimantan. Phillips holds a 50 percent interest in one oil field in the area and participated in four unsuccessful exploratory wells in 1981. At the end of the year, the company was negotiating with the Indonesian government to resume operations in the area.

Elsewhere in Indonesia, Phillips participated in eight unsuccessful exploratory wells. One was located offshore in southeast Kalimantan, one offshore in east Kalimantan and six offshore in the Teluk Berau contract area. Phillips has a 25 percent interest in east Kalimantan and a 50 percent interest in the other contract areas.

Seismic work was also carried out on 3.8 million

acres on east Irian Jaya and on 5.5 million acres on the southern coast of Irian Jaya. Phillips has a 50 percent interest in both areas.

### Canada

Offshore the Canadian Arctic, Phillips participated in three successful exploratory oil and natural gas wells in 1981. The wells are located near the company's 20 percent interest Whitefish natural gas discovery, made in 1979. The company plans to participate in four wells in the area in 1982 to determine if the discoveries are commercial and to test other prospects.

In the Canadian Overthrust Belt, Phillips has a 17 percent interest in a successful natural gas well drilled in 1981 in British Columbia. In northeast Alberta, Phillips also continued to evaluate four heavy oil areas covering 120,000 net acres. A decision to develop these prospects hinges in part upon Canada's future energy policy, which is now being developed.

### Other Exploratory Areas

The company plans to drill its first exploratory well in 1982 on a 1.6 million acre area acquired in 1980 off the southeast coast of Australia. The company has a one-third interest. In another area off the southeast coast of Australia, Phillips will begin a seismic program in 1982 on a 400,000 acre area in which the company also holds a one-third interest. In 1981 Phillips relinquished its 20 percent interest in an eight million acre tract offshore northwestern Australia after drilling two dry holes and a non-commercial natural gas well.

Early in 1982, the company completed an unsuccessful exploratory well offshore the Philippine Islands. Four other exploratory wells drilled in 1981 were also unsuccessful. Two exploratory wells are planned in 1982. Phillips has a 50 percent interest.

Late in the year Phillips tested oil from a non-commercial discovery 15 miles offshore Ghana. Phillips has a 50 percent interest.

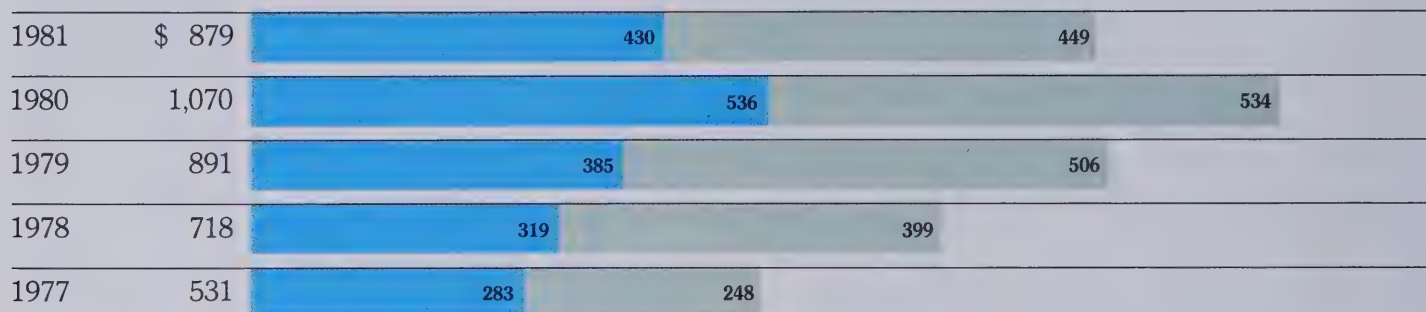
Also in Africa, Phillips had a 25 percent interest in an unsuccessful exploratory well off the coast of Morocco. At the end of the year, the company was participating in a one-third interest well in a deep-water area off the Congo. In 1981 the company acquired a 25 percent interest in 29.7 million acres located in Sudan.



*One of the world's largest, this subsea wellhead will be lowered into about 500 feet of water offshore the Ivory Coast. Initial crude oil production from an early development and production program is expected in late 1982.*

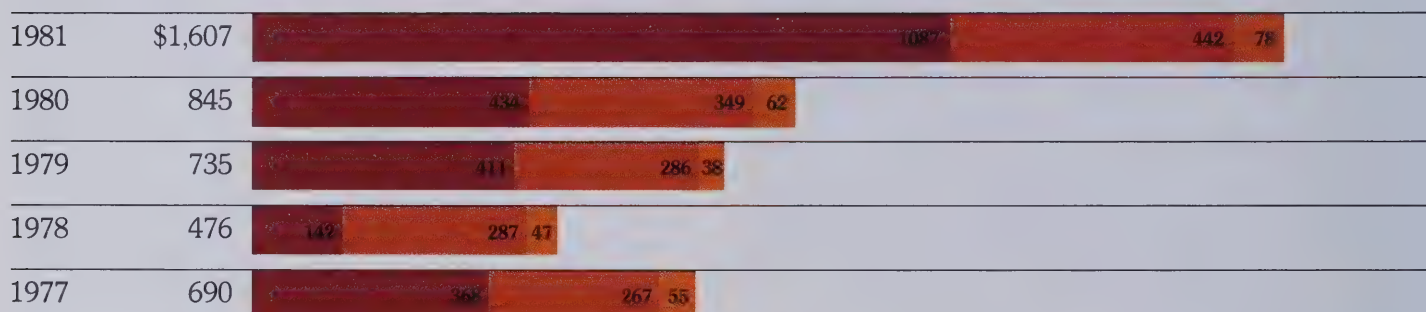


## Net Income (Millions of Dollars)



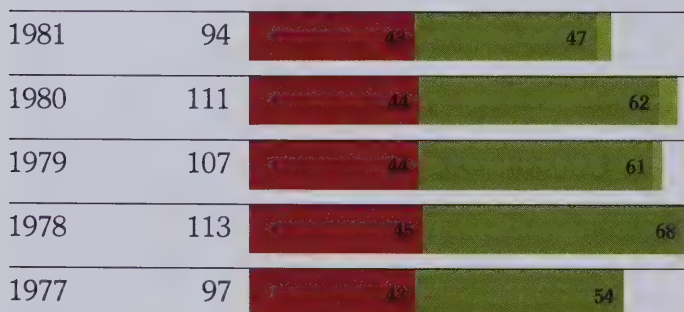
Exploration and Production All Other Operations

## Capital Expenditures (Millions of Dollars)



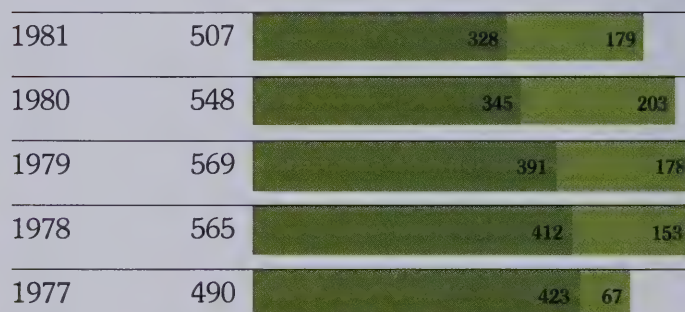
United States Europe-Africa Other Areas

## Net Crude Oil and Natural Gas Liquids Production (Millions of Barrels)



United States Crude Oil Outside U.S. Crude Oil Outside U.S. NGL

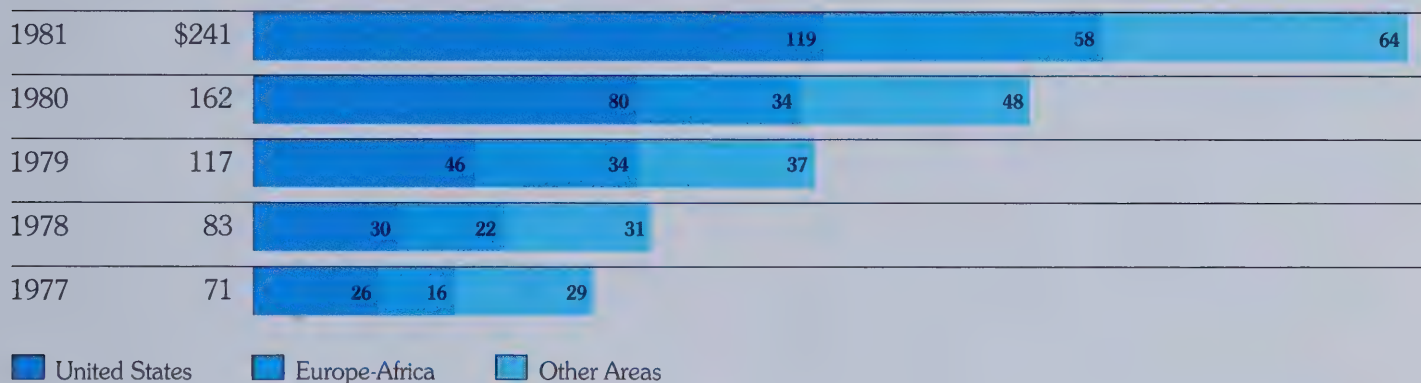
## Net Natural Gas Production (Billions of Cubic Feet)



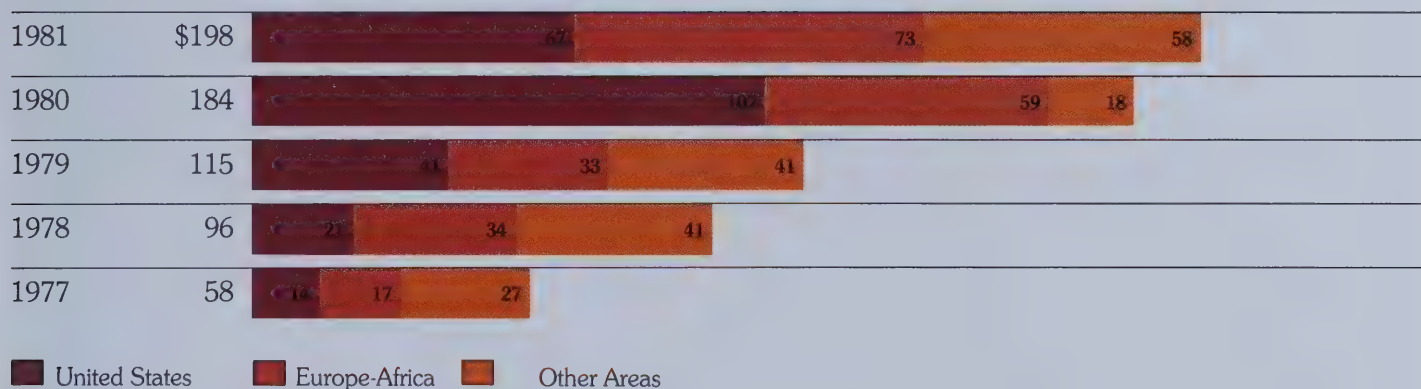
United States Outside U.S.



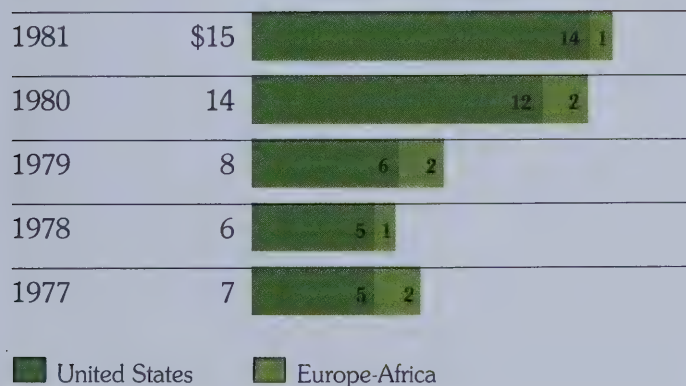
## Geological and Geophysical Expenses (Millions of Dollars)



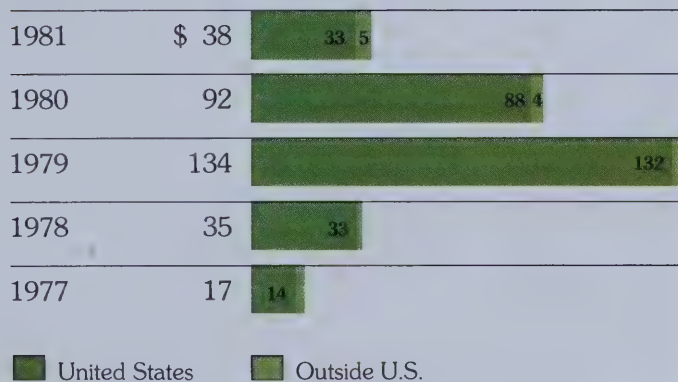
## Dry Hole Costs (Millions of Dollars)



## Lease Rentals (Millions of Dollars)



## Impairment of Leasehold Investments (Millions of Dollars)





## Gas and Gas Liquids

Natural gas and natural gas liquids operations continue to be strong contributors to Phillips earnings. The Gas and Gas Liquids organization is responsible for acquiring, gathering, processing and marketing natural gas and extracting natural gas liquids. Phillips is the largest producer of natural gas liquids in the United States and is a pioneer in liquefying natural gas and developing offshore natural gas technology.

Net income for Gas and Gas Liquids in 1981 amounted to \$324 million, compared with \$332 million in 1980. Although revenues for natural gas and natural gas liquids increased, higher purchase costs for natural gas reduced profit margins.

Natural gas revenues for Gas and Gas Liquids were

up 29 percent over 1980 due to increases in both volumes and prices. This increase in revenues includes higher revenues for liquefied natural gas delivered under long-term contract from a 70 percent interest liquefaction plant in Kenai, Alaska.

### Reserves

The company has access to large reserves of natural gas and natural gas liquids not only through its own exploration and production efforts, but also through purchase contracts and processing and exchange agreements. Reserves of natural gas in the United States available through contracts and agreements totaled 1.98 trillion cubic feet at the end of 1981,



*New storage tanks stand ready to take the first natural gas liquids processed at a recently completed natural gas liquids extraction plant in the Williston Basin of North Dakota. Phillips wholly or partly owns 58 extraction plants in the United States.*



8 percent lower than the 2.15 trillion cubic feet reported in 1980. At the end of 1981, reserves of natural gas liquids available under processing agreements and natural gas purchase contracts totaled 237 million barrels, 14 percent lower than reported a year earlier.

### Gas Gathering and Processing

One of Phillips traditional strengths has been its ability to meet the feedstock needs of its refining operations with its own natural gas liquids supplies. Natural gas liquids are used in the blending of gasoline and as a raw material for manufacturing petrochemicals.

Phillips U.S. production of natural gas liquids averaged 151,900 barrels a day in 1981, a slight increase from the previous year. Most of these liquids are feedstocks for the company's refining operations. After processing, some liquids are, in turn, used in the manufacture of the company's chemical products.

Phillips is continuing its efforts to maintain supplies of natural gas to its natural gas liquids extraction facilities and to expand those facilities when gas supplies and favorable economics allow. Including natural gas processed for others, Phillips processed 1.8 net billion cubic feet of natural gas a day in 1981, compared with 1.9 net billion cubic feet a day in 1980.

In 1981 the company expanded its natural gas

gathering and processing facilities in the Austin Chalk Trend in Texas, one of the most active exploration areas in the nation. The company acquired three small plants in the area in 1981 and began a construction program in 1982 that will more than double its natural gas liquids capacity in the area. Two plants now under construction will have a combined capacity of 115 million cubic feet of gas a day, bringing total capacity for processing Austin Chalk Trend natural gas to 215 million cubic feet a day. The plants are scheduled for completion in early 1983.

In late 1981 the company also started up a new plant near Oklahoma City and completed another plant in the Williston Basin in North Dakota.

At the end of the year, the company wholly or jointly owned 58 natural gas liquids extraction plants in the United States.

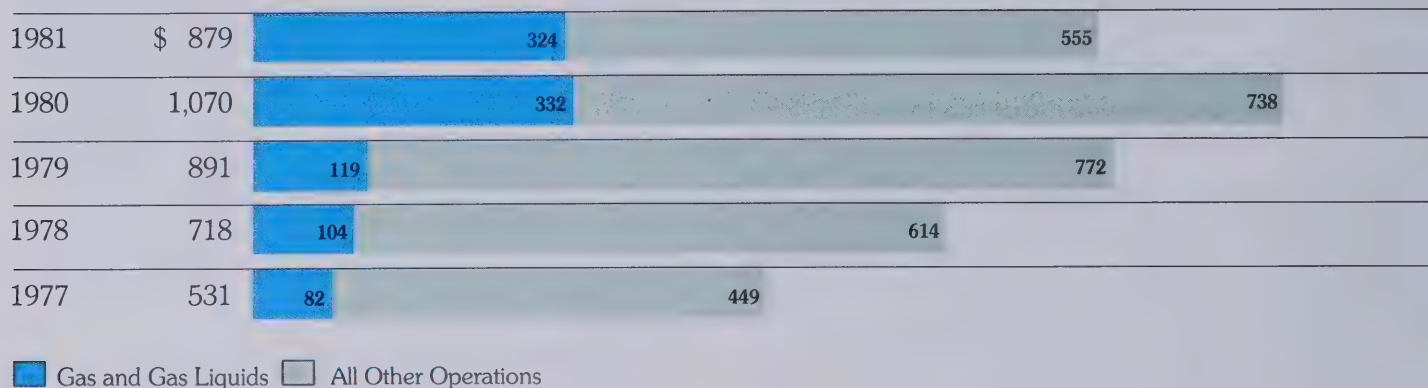
Overseas, Phillips announced plans in 1981 to withdraw from Bonny LNG Ltd., a company organized to export liquefied natural gas from Nigeria through a proposed gas processing plant. After re-evaluating the Bonny project, it was determined that the company had other projects that, because of timing, demand higher priority. Phillips relinquished its 7.5 percent interest in the company and discontinued its role as technical leader early in 1982.



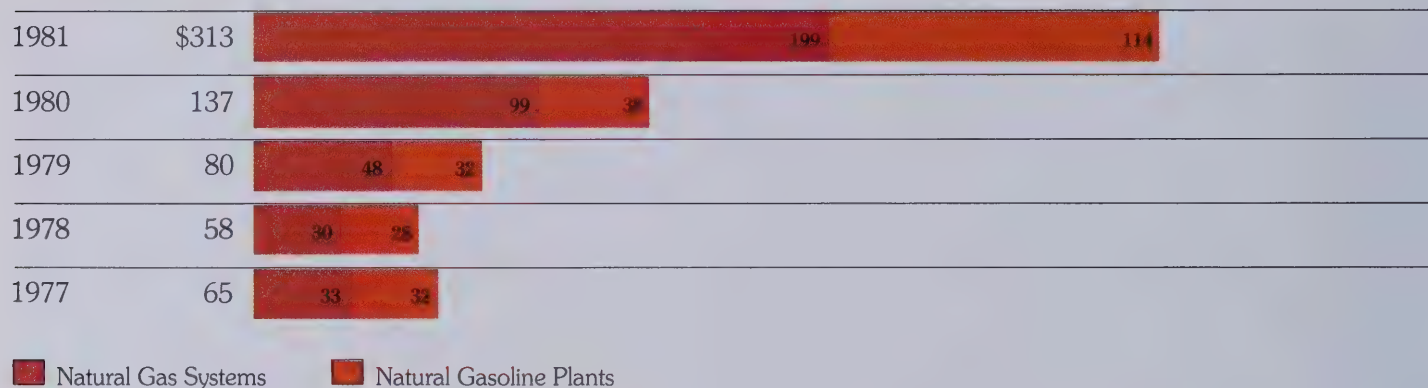
*Dusk settles on a natural gas liquids extraction plant recently completed in the gas-prone Austin Chalk Trend of Texas. Phillips purchased three other small extraction plants in the area in 1981 and began a construction program in 1982 that will more than double the company's natural gas liquids processing capacity in the area.*



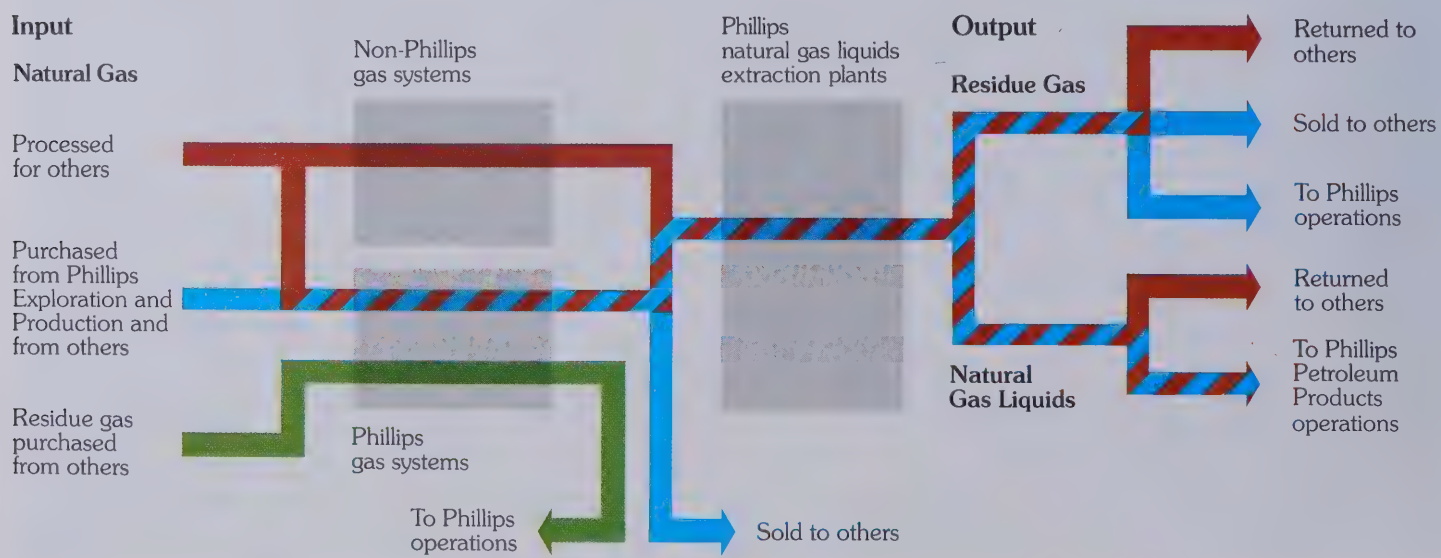
## Net Income (Millions of Dollars)



## Capital Expenditures (Millions of Dollars)



## Gas and Gas Liquids Operations



*This flow diagram traces the movement of natural gas through the company's processing facilities. Virtually all natural gas liquids extracted for Phillips are used in the company's refining and fractionating facilities. Residue gas is sold or returned to others or used as a fuel in company operations.*



## Minerals

In addition to finding and developing petroleum, Phillips continues its efforts to find and develop alternate energy resources. These resources will require long lead times to develop and will not become a contributor to company earnings for some time. In 1981 the company had capital expenditures of \$75 million for its lignite coal, geothermal, oil shale and uranium holdings.

### Lignite Coal

Major federal and state permits were obtained in 1981 for the construction of the Oxbow mine, the first of two lignite coal mines Phillips plans in northwest Louisiana. The mines will supply lignite for two electric power plants to be built by a Louisiana utility. First deliveries are scheduled for 1985. The company is also studying the feasibility of building a commercial-size lignite gasification plant and mine in northeast Texas. As part of this study, a 25,000-ton sample of lignite has been sent to a commercial coal gasification plant for testing. Phillips has approximately eight billion tons of lignite in six southern states.

### Geothermal

Geothermal will be the company's first commercial alternate energy venture, with steam sales scheduled

to begin in early 1984 from a discovery at Roosevelt Hot Springs near Milford, Utah. A Utah utility will install electric generating facilities at the site. A research program began in 1981 to test various equipment. Generating capacity is expected to be expanded to more than 20 megawatts by 1984. This would provide the total electricity requirements of a city of 20,000 people. Phillips is evaluating four other geothermal discoveries and has an active exploration program under way in several western states.

### Oil Shale

Phillips has a one-third interest in the White River Shale Oil Project in northeastern Utah. Studies are being conducted that could lead to production from the first phase of a development project in the late 1980s. The company also holds oil shale acreage in Colorado, Indiana, Kentucky and Ohio.

### Uranium

Depressed demand for uranium resulted in Phillips putting its Nose Rock mine in northwestern New Mexico on standby status in 1981. The company will continue to monitor and evaluate current conditions to determine if a change should be made in the status of the operations.



*In the Nevada desert, a geothermal discovery is tested near Reno. Geothermal energy will be the company's first commercial alternate energy venture, with initial production scheduled in 1984 from a Utah discovery.*



*A 25,000-ton sample of Phillips lignite coal, extracted here in northeast Texas, was sent for testing in a commercial coal gasification plant to determine if lignite can be economically turned into synthetic natural gas.*



## Petroleum Products

Petroleum refining, marketing and transportation operations had lower earnings in 1981 than in 1980. Net income in Petroleum Products activities was \$25 million in 1981, compared with \$64 million in the previous year. An additional \$18 million was realized in 1981 from equity in earnings from affiliated companies related to refining, marketing and transportation, compared with \$15 million in 1980.

The U.S. refining industry experienced a sharp increase in raw material costs at the beginning of the year as world oil prices increased and domestic oil prices were decontrolled. Although costs moderated later in the year, vigorous competition in petroleum product markets prevented full recovery of higher

costs. As a result, industry profit margins were reduced. Largely because of the sluggish U.S. economy and widespread consumer conservation, total industrywide demand for petroleum products fell nearly 6 percent below the already reduced levels experienced in 1980.

After posting losses in the first half, Phillips refining, marketing and transportation operations improved in the second half. The improvement resulted in part from the company's expanded and modernized Sweeny, Texas, refinery becoming operational. The refinery is able to process lower cost, heavier crude oils, thereby allowing higher margins. Phillips also was able to counter the industry trend of reduced gasoline



*Balanced on steel beams, construction workers work high above the Borger, Texas, refinery, site of an extensive modernization program. Scheduled for completion in 1983, the modernization will enable Borger refinery to process heavy, high-sulfur crude oils.*



sales by delivering additional product and by acquiring new business in markets where other companies had withdrawn. As a consequence, Phillips gasoline sales were down only 3 percent, compared with the industry decline of 5 percent.

In addition to the decline in earnings from U.S. operations, international operations were also less profitable than in 1980. This was caused primarily by adverse economic conditions in the United Kingdom.

The company continued to position itself for what appear to be increasingly competitive years ahead. A second refinery modernization continued on schedule; preparations were made for further consolidating refining and marketing operations; new marketing

strategies were undertaken, including initiating the sale of premium unleaded gasoline, and increased emphasis was put on aviation products.

### Feedstock Supplies

The world surplus of crude oil, which began in 1980, continued through 1981 and abated only slightly later in the year.

U.S. crude oil accounted for 73 percent of Phillips refinery crude oil runs, compared with 59 percent in 1980. During 1981 the company replaced uneconomical purchases of crude oil from Nigeria, Algeria and Mexico with crude oil from the United Kingdom and the United States.

Natural gas liquids accounted for 36 percent of Phillips total refinery runs. This secure, economical U.S. feedstock is ideal for blending gasoline and for use as a raw material for making petrochemical products. The company increased its natural gas liquids processing capacity by 42,000 net barrels daily by acquiring a 40 percent interest in a processing facility at Conway, Kan.

### Transportation

The worldwide downturn in petroleum demand, and the consequent reduction in world oil shipments,



*A giant hoist helps in the installation of processing vessels to remove sulfur from heavy, high-sulfur crude oils at the Borger refinery.*



*This fractionating facility at Conway, Kan., increases the company's U.S. capacity to process natural gas liquids by 42,000 barrels a day. Used in the manufacture of gasoline and petrochemicals, natural gas liquids accounted for more than a third of Phillips total refinery runs in 1981.*



## Petroleum Products

spurred new efforts to make transportation operations more efficient. Philtankers Inc., a subsidiary company, sold one older 50,000-deadweight-ton tanker and placed three newer tankers of similar size on charter to a foreign firm. The very large crude carrier *Phillips Enterprise* is being outfitted to serve as a storage vessel for the early development and production program for the company's oil discovery offshore the Republic of the Ivory Coast.

In another effort to cut transportation costs, Phillips began offloading oil directly from very large crude carriers into smaller tankers. Carried out offshore Freeport, Texas, the action avoided costs normally incurred through transshipments to smaller vessels via Caribbean terminals.

Phillips Pipe Line Company completed a 25,000-barrel-a-day expansion of its natural gas liquids pipeline from West Texas to the Sweeny refinery on the Texas Gulf Coast. The line picks up increased volumes of natural gas liquids from newly developed supplies in southern Texas.

### Refining

Major changes were made in refining operations. The company's enlarged, modernized Sweeny refinery processed increased volumes of heavier, less

expensive crude oil. Although technical difficulties delayed full start-up until mid-year, all new units were operating in the fourth quarter. During the last half of 1981, heavy, high-sulfur crude accounted for 52 percent of Sweeny refinery's total crude oil runs compared with 3 percent for the last half of 1980.

The company made good progress on a similar modernization of its Borger refinery in the Texas Panhandle. Major components were installed on the central unit, an atmospheric residual desulfurizer, which removes sulfur and metals in lower quality crudes and permits conversion to high-value products. The modernization will allow the refinery to process high-sulfur crude at the rate of 90 percent of its total capacity. Start-up is scheduled for early 1983.

Early in 1982 the company completed the sale of its Great Falls, Mont., refinery, which has a capacity of 6,000 barrels a day, to Simmons Oil Corporation. The sale included a 92-mile proprietary crude oil pipeline serving the refinery and a number of marketing facilities. Acquired by Phillips in 1947, the refinery was sold as part of an effort to consolidate refining and marketing strength for what appear to be the more competitive conditions of the 1980s. Upon finalizing the sale agreement, Phillips began a program to withdraw from marketing in the area served by the



*Arriving from Mexico, a tanker carrying liquefied petroleum gas moves into the company's Adams Terminal on the Houston Ship Channel. Imported shipments of liquefied petroleum gas began in 1981 at the facility.*



refinery, which includes Montana and parts of four other northwestern states. Employees were offered jobs either by Phillips or Simmons.

The company's refineries in 1981 operated at 75 percent of rated crude oil capacity. Decreased petroleum demand in the United States, high product inventories and difficulties in starting up the Sweeny refinery expansion contributed to the low utilization rate. Nevertheless, Phillips crude oil refining operations ran at a higher rate than the overall average for the U.S. refining industry.

Natural gas liquids processed at Borger and Sweeny refineries and through a joint-interest facility located in Kansas averaged 167,000 barrels a day. Overall, natural gas liquids runs increased 5 percent, compared with 1980.

The cost of crude oil delivered to Phillips U.S. refineries averaged \$36.74 in 1981, 13 percent higher than in 1980. The increase was the result of higher world oil prices and decontrol of U.S. crude oil. The cost of natural gas liquids to Phillips refineries increased 8 percent in 1981 to \$18.39 a barrel.

### Marketing

Removal of petroleum products price and allocation controls created industrywide changes in gasoline and propane marketing, tending to increase price competition and create greater marketing flexibility. Phillips sales volumes were 3 percent lower for automotive gasoline and 4 percent lower for distillates in 1981, compared with 1980. After a sharp decline in the first and second quarters, automotive gasoline sales rebounded at mid-year and continued at higher levels. The improvement was achieved by increasing deliveries to jobbers who showed they could expand sales and by obtaining business other companies lost when withdrawing from markets.

Phillips average wholesale prices at the end of 1981 were eight cents a gallon higher for automotive gasoline and 13 cents a gallon higher for distillates as compared with the end of 1980. Profit margins were lower during the first half as vigorous marketplace competition and relatively high crude costs prevented the full recovery of costs. Margins improved in the second half as worldwide crude prices declined and as more lower-cost crude oils were processed at the

modernized Sweeny refinery. Margins also benefited from increased sales in the second half.

Phillips began marketing premium unleaded gasoline in December through terminals from the Gulf Coast of Texas through the southeastern states. The fuel is produced by the Sweeny refinery. Distribution will be expanded as demand increases. On an industry basis, premium unleaded now accounts for nearly 10 percent of total gasoline sales and is forecast to grow to 20 percent by 1985.

Phillips remained committed to marketing primarily to jobbers, believing that the operations of independent businessmen are often more responsive to local market conditions than company-operated facilities. The company delivers products to some 1,700 jobbers who supply approximately 13,900 marketing outlets. During the year, 26 marginal company-operated outlets were eliminated, bringing the number of company-operated outlets to 265.

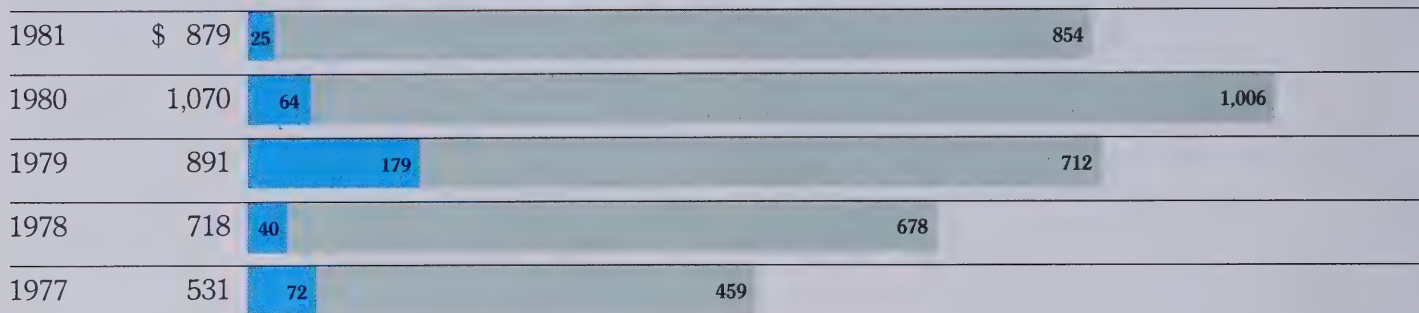
Sales of aviation fuels increased 19 percent from 1980. Phillips is one of the leading suppliers of aviation gasoline and turbine fuel to the private sector of the market. The company markets through more than 700 fixed based operators. The company also was the first to market a multiviscosity aviation oil for general aviation use.



*Sales of Phillips aviation fuel to both commercial and private aircraft rose almost 20 percent in 1981. Phillips is one of the leading suppliers of aviation gasoline and turbine fuel to the private sector of the market.*

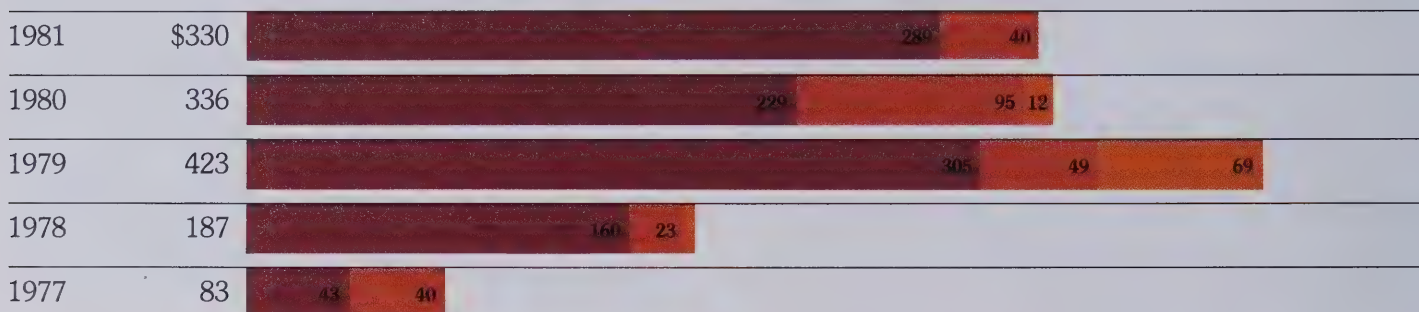


## Net Income (Millions of Dollars)



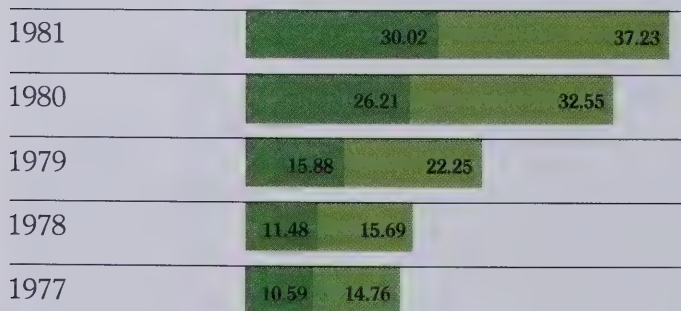
■ Petroleum Products ■ All Other Operations

## Capital Expenditures (Millions of Dollars)



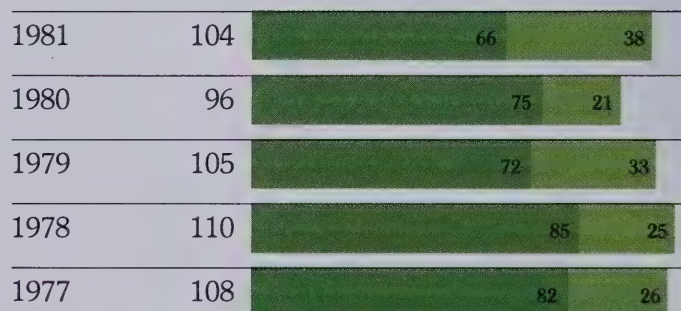
■ U.S. Refining ■ U.S. Marketing and Transportation ■ Outside U.S.

## Cost of Refinery Feedstocks to Value of Petroleum Products Sold (Dollars per Barrel)



■ Average Refinery Feedstock Cost ■ Average Value Product Sold

## Refinery Crude Oil Runs—Sweet to Sour (Millions of Barrels)



■ Sweet Crude Oil ■ Sour Crude Oil



## Feedstocks Processed and Products Produced

	Average Percent	
	1981	1980
<b>Feedstocks</b>		
Domestic crude oil	45%	35
Imported crude oil	17	25
Natural gas liquids	36	37
Miscellaneous hydrocarbons	2	3
	100%	100

## Output

Automotive gasoline	37%	38
Chemical feedstocks	12	13
Distillates	20	19
Consumer LPG	16	16
Other products	15	14
	100%	100

## Average Cost of Refinery Feedstocks

	Per Barrel	
	1981	1980
Domestic crude oil	\$36.19	31.88
Imported crude oil	38.20	33.25
Natural gas liquids	18.39	17.06

## Refinery Crude Oil and Natural Gas Liquids Capacities and Runs—Average Barrels Daily

	Crude Oil		Natural Gas Liquids	
	Capacity	Runs	Capacity	Runs
<b>1981</b>				
Sweeny, Texas	175,000(1)	116,000	81,000	69,000
Borger, Texas	95,000	84,000	105,000	96,000
Kansas City, Kansas(2)	80,000	58,000	—	—
Woods Cross, Utah	24,000	22,000	—	—
Great Falls, Montana(3)	6,000	5,000	—	—
Conway, Kansas(4)	—	—	42,000	2,000
	380,000	285,000	228,000	167,000
<b>1980</b>				
Sweeny, Texas	218,000(1)	110,000	71,000	58,000
Borger, Texas	97,000	48,000(5)	105,000	101,000
Kansas City, Kansas	80,000	75,000	—	—
Woods Cross, Utah	24,000	23,000	—	—
Great Falls, Montana	6,000	6,000	—	—
	425,000	262,000	176,000	159,000

(1) Reduction in capacity due primarily to an older crude unit being placed on inactive status.

(2) On March 9, 1982, Phillips announced plans to close the Kansas City refinery.

(3) Sold January 4, 1982.

(4) Acquired April 1, 1981.

(5) Borger refinery crude oil charge rates were reduced by accidents in January and June 1980.



## Chemicals

Financial results in the company's Chemicals business reflected the general economic trends prevailing in the United States and abroad. Expected growth in Chemicals demand did not generally occur and, in many product lines, demand softened during the year. This was especially true for export markets, where the strengthening of the U.S. dollar abroad adversely affected the company's competitive position. Although revenues increased in every line of Chemicals operations, higher manufacturing and feedstock costs squeezed profit margins.

Earnings in Chemicals were lower than in 1980. Net income for 1981 was \$90 million, compared with \$111 million in 1980. An additional \$25 million was realized

from equity in earnings from affiliated companies related to Chemicals, compared with \$11 million in the previous year.

Expansion projects were completed in 1981, with the emphasis on plastics and plastic-related businesses. Although plastics are being adversely affected by current economic conditions, demand is expected to grow substantially over the long-term.

### Basic Petrochemicals and Specialty Chemicals

Demand for olefins, key feedstocks in the manufacture of plastics and other derivatives, was down in 1981.

Phillips is a leading producer of cyclohexane, which is used in the manufacture of nylon, and paraxylene



*An expansion completed in 1981 at Phillips petrochemical complex near Houston increases the plant's total annual production capacity for polyethylene to 1.5 billion pounds. This was one of several expansions undertaken during the year in the company's plastics and plastic-related businesses.*



used in the manufacture of polyester. Demand for nylon was good during the first half of 1981, but dropped off during the last half of the year. Consequently, demand for cyclohexane followed a similar pattern. Demand for polyester remained strong throughout the year, thereby maintaining demand for paraxylene at relatively high levels.

Phillips Puerto Rico Core Inc., at Guayama, operated at 90 percent of capacity during the year. The facility produces a variety of petrochemical products and motor fuel from naphtha.

Specialty chemicals achieved record revenues. Revenues from drilling mud additives for the oil field increased substantially in response to the increase in

drilling activity in the United States and overseas. In 1981 a petrosulfur compound plant began operation in Tessenderlo, Belgium, to supply European customers.

### Plastics

Revenues increased in the company's plastic resins operations in 1981, but margins declined as feedstock costs increased and sales prices declined.

Sales volumes of Marlex polyethylene were above 1980 levels. An expansion of the company's polyethylene plant at Pasadena, Texas, was completed during the year, increasing the plant's total annual production capacity to 1.5 billion pounds. The company continues to benefit from the licensing of its process for producing high-density polyethylene.

Sales volumes of K-Resin, a butadiene styrene polymer used in packaging and medical applications, were up in 1981.

Ryton polyphenylene sulfide, a heat and corrosion resistant plastic resin, gained increased acceptance in engineering plastics applications. A three million pounds-a-year expansion was completed in 1981 at the company's Ryton plant in Borger, Texas, increasing the plant's annual capacity by 50 percent.

### Fibers

Sales volumes and revenues for fibers showed significant improvement over previous years. Demand for staple, filament and carpet yarns was up considerably for most of 1981. However, demand dropped late in the year due to a general economic downturn for home furnishings.

Nonwoven fabrics continued to show good increases in sales volumes and revenues. These fabrics are used in furniture construction and in asphalt reinforcement and soil stabilization.

### Rubber Chemicals

In spite of the depressed U.S. automotive industry, sales volumes of carbon black and synthetic rubber in the United States showed only modest declines from 1980. The company's Toledo, Ohio, carbon black plant was closed permanently in 1981 because it was no longer profitable. Internationally, demand for carbon black and synthetic rubber was weak in Western Europe as a result of slow economic activity.



*A mud engineer on a rig drilling in Oklahoma tests a mud sample containing additives manufactured by Phillips. Increased drilling activity in the United States and overseas has spurred revenues in the company's mud additives business.*



## Chemicals

In Mexico, demand continued strong. A new joint-interest rubber plant in Tampico, Mexico, is expected to be completed in 1982.

### Consumer Products

Revenues from consumer products were up in 1981. A leading performer was Phillips Driscopipe, Inc., which manufactures polyethylene plastic pipe for water and sewer systems, natural gas distribution systems and other industrial uses. Driscopipe opened a new plant near Montreal in 1981, brought the expansion of its Pryor, Okla., plant on stream and approved an expansion at the Brownwood, Texas, plant. Demand for polyethylene pipe in oil field applications continued to grow with the rapid acceleration of U.S. drilling activity. The company also began export sales to Mexico and England and authorized a new joint-interest pipe plant in Mexico.

Revenues were up for H.P. Smith Paper Co., reflecting growing demand for the company's Poly Slik release paper and silicone coated films. H.P. Smith began modifying and expanding its Iowa City, Iowa, plant to increase total Poly Slik production capacity by 25 percent.

Revenues improved for Sealright Co., Inc., which manufactures paperboard and plastic containers. Sealright's Ultrakan business line was expanded with the introduction of a new system for pint-size ice cream packaging.

Revenues for Wall Tube & Metal Products Co. were about the same as in 1980. Revenues were adversely influenced by the depressed automotive industry, but the company's stainless steel tubing business improved. The company manufactures recreational furniture, as well as fabricated metal components and assemblies for automobiles and trucks, and stainless steel tubing for aircraft, aerospace and other industrial applications.

Phillips Products Co., Inc., had lower revenues. The company consolidated some of its facilities during the year by transferring its operations at Cambridge, Ohio, to the company's plant in Hopkinsville, Ky. Phillips Products manufactures a variety of injection-molded plastic products, including poultry, bakery, planterware, Dura Craft shutters and custom-molded

items. Demand for Garden Scene plastic flower pots and other planterware remained strong.

Interplastic Corporation, which makes unsaturated polyester resins used in reinforced plastics, showed improvement over 1980.

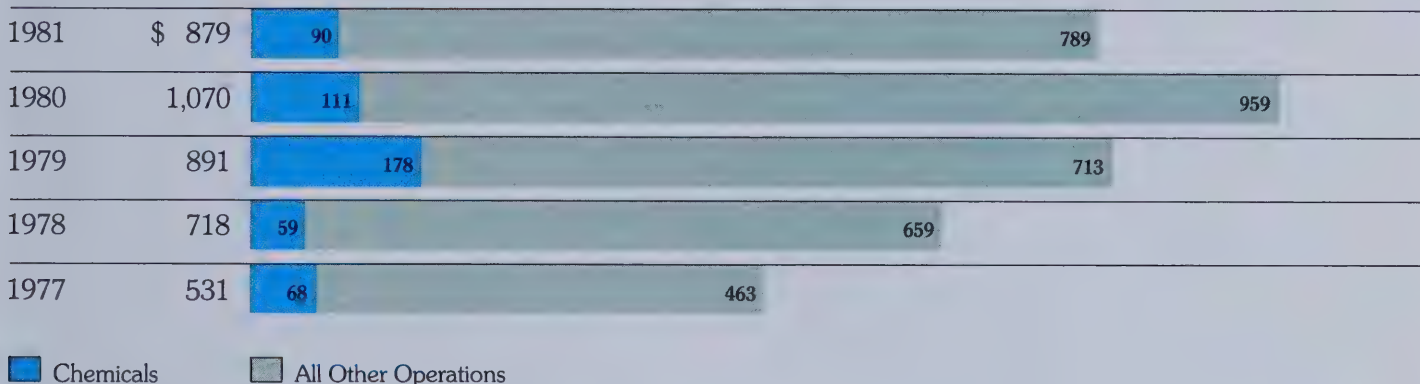
### Fertilizer

Revenues increased significantly for the fertilizer business, primarily as a result of increased demand and improved prices. American Fertilizer & Chemical Co., which operates farm stores, also showed improvement. Sales volumes of ammonium nitrate used in explosives improved as a result of a stepped-up marketing program.



*Polyethylene plastic pipe is stacked outside the company's newest Driscopipe plant near Montreal. Seven plants now manufacture Phillips polyethylene pipe, which is used for water and sewer systems, natural gas distribution and other industrial applications.*

## Net Income (Millions of Dollars)



## Capital Expenditures (Millions of Dollars)



## Principal Chemicals Plants or Expansions Completed During 1981

Product	Location	Phillips Interest	Additional Gross Annual Capacity
Carbon black	Hannover, West Germany	100%	22,000,000 pounds
High-density polyethylene (1)	Pasadena, Texas	100	450,000,000 pounds
Petosulfur compounds (2)	Tessenderlo, Belgium	100	22,100,000 pounds
Polyphenylene sulfide	Borger, Texas	100	3,000,000 pounds

## Principal Chemicals Plants or Expansions Under Construction or Authorized at Year-End

Product	Location	Phillips Interest	Additional Gross Annual Capacity
High-density polyethylene (2)	Singapore	60%	176,000,000 pounds
High-density polyethylene	Tarragona, Spain	45	132,000,000 pounds
High-density polyethylene	Antwerp, Belgium	50	187,000,000 pounds
Mixed xylenes	Sweeny, Texas	100	37,000,000 gallons
Polyphenylene sulfide	Borger, Texas	100	3,000,000 pounds
Synthetic rubber (2)	Tampico, Mexico	39	55,000,000 pounds
Toluene	Sweeny, Texas	100	17,750,000 gallons

(1) Plant can also produce low-density polyethylene.

(2) New plant.



## Corporate Citizenship

By providing jobs and paying taxes, Phillips helps support the well-being of the communities in which it operates. Nevertheless, in order to strengthen its position as a welcome and productive member of the community, Phillips helps provide leadership in civic affairs and recognizes employees' civic involvement.

In addition, the company contributes to many organizations which work to improve the quality of life. In 1981 Phillips and the Phillips Petroleum Foundation, Inc., made contributions totaling \$9.2 million. Approximately \$5.4 million went to education, \$500,000 to youth programs, \$2.4 million to civic undertakings, \$400,000 to health and welfare and \$500,000 to cultural endeavors. An additional \$4.5 million went to educational films.

### Community Involvement

In communities containing major Phillips installations, the company has increased its financial support and advisory assistance in building various community facilities. At company headquarters in Bartlesville, Okla., a multipurpose community center was completed in early 1982 with substantial assistance from Phillips. The company has contributed toward the construction of other community facilities in Sweeny and Borger, Texas.



*Kenneth Treadway, director of youth and community relations, talks to young swimmers in the People's Republic of China, where Phillips sponsored a seminar for swimming coaches in 1981. Phillips was operator for a group of companies that completed seismic work off the southern coast of the People's Republic of China in 1980.*

In cooperation with park and recreation departments, the company conducted youth swimming and diving clinics in 20 U.S. cities in 1981, involving nearly 10,000 youngsters. As national sponsor for the U.S. senior diving and swimming programs, Phillips support will help enable American divers and swimmers to compete in the 1984 Olympics in Los Angeles. Overseas, Phillips sponsored seminars for swimming coaches in the People's Republic of China, Norway and Nigeria.

In the United Kingdom, Phillips sponsors the Rugby Football Schools Union, which enables 16- and 19-year-old British all-stars to compete in international matches. In Norway, the company is sponsor of an international track and field meet and an amateur ice hockey team made up of the country's top players. In 1981 the company also contributed to a physical rehabilitation program in Egypt, a scholarship program for Nigerian students and a disadvantaged youth program in Mexico.

### Educational Support

Phillips continued its support of educational programs, not only in the United States, but abroad. The nine-part film series "Search for Solutions" was viewed in 1981 by students in more than two-thirds of the



*Phillips environmental representative Kent Jenkins studies vegetation in the Louisiana swamplands, near one of the company's proposed lignite coal mines.*



secondary schools in the United States and by millions more students in Canada, the United Kingdom, Hong Kong and the Philippines. The objective of this Phillips-sponsored film series is to encourage more students to pursue careers in the fields of science and engineering. Another Phillips film, "Ekofisk . . . One of a kind", which acquaints students with the challenges of offshore oil development, was viewed by 117,000 students in the United Kingdom in 1981.

In 1981 the company contributed more than \$1.8 million in capital, research and professional development grants to colleges and universities. In addition, the Phillips Foundation donated \$879,000 to colleges, universities and technical institutions through

the Matching Gift Plan. Employee and retiree gifts are matched two-for-one.

### **Environmental Protection**

Phillips committed \$63 million in 1981 for capital expenditures to protect the environment. Significant 1981 additions were the installation of an air monitoring system at a natural gas liquids extraction plant that was under construction in Williston, N.D.; development of a waste incinerator for the company's Research Center in Bartlesville; equipment to reduce gaseous emissions at a specialty chemicals plant in Tessenderlo, Belgium; installation of oily water treatment units on the Ekofisk platforms in the Norwegian North Sea and additional waste water treatment facilities at the Borger and Sweeny refineries. An additional \$164 million was spent during the year to operate and maintain existing environmental control systems, 34 percent more than was spent in 1980.

### **Energy Conservation**

For more than a decade, Phillips has been concerned with efficient energy usage. In 1973 the company initiated a formal energy conservation program which has become increasingly important as energy costs continue to rise. Dollar savings have surpassed the \$226 million the company has invested or committed to energy conservation projects since the program began. Total energy savings during 1981 amounted to a rate equivalent to 1.6 million barrels of oil, enough to provide heat and electricity for 50,000 average-size homes for a year.

Major improvements in energy conservation were made in 1981 at the Sweeny and Borger refineries and at the company's Puerto Rico Core Inc. plant. These improvements alone saved 180,000 barrels of oil during the year.

The company's van pool program for employees at Phillips facilities in Bartlesville, Houston, Sweeny and Borger was expanded during the year. The company now has 43 passenger vans transporting about 500 employees to and from work. The effort has resulted in the annual conservation of approximately 160,000 gallons of gasoline.



*At the company's Sweeny, Texas, refinery, a worker inspects a video camera installed in 1981 to monitor emissions from the refinery's elevated flares.*



## People

Reaffirming a long-standing company commitment that "employees are our most important asset," Phillips continues to put emphasis on recruiting, hiring, training and developing qualified people. The need for qualified people remains critical since many Phillips post-World War II employees are retiring or nearing retirement. This requires a continuing need for employees with selected skills to staff supervisory and operational positions.

### Employment

Employment during 1981 rose 6 percent, reflecting expanded company operations and the upgrading of facilities, particularly in manufacturing, technical and scientific operations. At the end of the year, 34,500 people were working for Phillips. Of these, minorities accounted for 14 percent of all Phillips U.S. employees, about the same as in 1980. Of some 6,000 employees working for Phillips in other countries, 87 percent were citizens of the countries where they were employed.

### Recruitment

Because of the intense industry competition for qualified personnel, Phillips continued its hiring effort for both professional and skilled people. To hire outstanding young people interested in a career in the energy and chemicals industries, teams of Phillips recruiters visited some 132 university and college campuses. The company also continued to hire a substantial number of highly technical, experienced professionals to conduct its operations. These people accounted for about one-half of the company's new professional employees in 1981.

### Training

Phillips is strengthening its employee training programs. A study to assess the training needs of professional employees was completed during the year, and several other training studies of skilled employees were undertaken. The company established new training centers in Borger, Texas, and Bartlesville, Okla., and added several full-time training professionals. The company also increased the number of training programs available to employees. These programs range from seminars in advanced

management to courses in specific crafts and skills. In 1981 participation in the company's training or development programs increased 49 percent from levels recorded the previous year.

### Benefits

Improvements in Phillips benefits programs help to keep the company in a competitive position in recruiting and hiring qualified people. Eligible employees continue to receive additional company benefits through a variety of plan improvements and premium rate reductions. In most cases, these eligible employees now have more life insurance and accidental death protection coverage at reduced cost.



*Ekofisk employees are given a tour of onshore training facilities, including safety boats, at Tananger, Norway, before undergoing an extensive two-week safety and survival training program. All Ekofisk employees must complete the training program before taking offshore job assignments.*

Improvements were also made for eligible employees in the company's retirement plan, employee transfer moving policy and vacation policy.

During the year, the cost of employee benefits averaged \$9,800 for each employee. This represented an amount equal to 27 percent of the company's total payroll and benefits cost.

### **Suggestion Plan**

Through the company's Suggestion Plan, more than 3,800 awards were paid for suggestions that reduced costs and improved the quality of company operations. Tangible savings from first-year implementation of these suggestions reached \$9 million, an all-time

high. The total dollar amount paid to employees for their suggestions was a record \$874,000. Three employees earned the maximum \$25,000 award.

### **Safety**

The company continued to place high priority on assuring that work locations and conditions are safe and that employees maintain a positive posture of safety awareness. The lost-workday incident rate in 1981 was 0.5 per 200,000 employee hours worked. This was an improvement from 1980 and better than the company's safety objective for 1981. The vehicle accident rate was 3.3 per million miles driven, reflecting an improvement from 1980.

The company's Petroleum Products operations showed significant improvement in their safety efforts. In 1981 Petroleum Products achieved its lowest number of lost-workday incidents and had its lowest total fire-loss figure on record.

The company continued its worldwide efforts to review and update existing employee safety training programs and to develop additional programs. Overall, the dollar cost of accidents decreased substantially from the previous year's rate. Even with this highly improved record, the company is establishing more rigorous safety performance objectives for 1982.

### **Health**

Phillips is continuing its comprehensive research effort to assure that employees and Phillips customers are kept safe from exposure to toxic substances. Following a five-year study that involved extensive work with medical and academic research groups, Phillips signed a \$1 million contract with the Hazleton Laboratories America, Inc., for a complete toxicology study of some 100 materials manufactured by the company.

### **Labor Relations**

Relations with union organizations were good. Other than a brief strike at the Greater Ekofisk Development in the Norwegian North Sea, there were no work stoppages in company operations in 1981.



*Senior personnel safety representative Dennis Leahey demonstrates the testing of breathing equipment, which is located at all company refineries to protect employees in the event of an emergency.*



## Research and Development

The primary thrust of Research and Development is directed toward improving the company's efforts in petroleum exploration and production, refining and chemicals. However, in 1981 there was a broadening of Phillips research programs in the long-range areas of nuclear fusion, biotechnology, solar energy and synthetic fuels from lignite coal.

### Exploration and Production

Phillips researchers have achieved new developments in high-resolution seismology and vertical seismic profiling. This more precise seismic information reduces the odds of drilling a dry hole.

A major challenge of Phillips researchers is the development of new chemicals to recover oil left in discovered reservoirs, both onshore and offshore, after conventional production has been completed. In 1981 the company made significant progress toward developing polymers that can withstand the high temperature and high salinity environments characteristic of deep oil reservoirs.

### Product Development

The company's Ryton engineering plastic continues to receive substantial research and development effort, particularly in the applications area. When used as a

fiber, Ryton is expected to prove cost-efficient as a filter cloth, removing particulates from the emissions of coal-fired power plants.

Utilizing its extensive experience in synthesizing sulfur chemicals, Phillips commercialized in 1981 a line of mineral-processing chemicals. This family of sulfur-containing chemicals is used in the recovery of minerals such as copper, molybdenum, lead, zinc, gold and silver.

The company is also engaged in the synthesis of chemicals using the Triolefin process. This process was developed by Phillips researchers in order to upgrade common olefins into high-grade chemical and polymer intermediates.

### Process Research

Phillips researchers have developed technology to upgrade the heaviest, lowest grade crude oils for refining. These crude oils include the type found in the company's Canadian tar sands. A heavy oil extraction pilot plant is operating at the Phillips Research Center in Bartlesville, Okla., to evaluate the economics of this new technology.

### Alternate Energy and Minerals

The company is working on technology to



*Ben Powell, senior research geologist, performs chemical analyses of rocks and minerals using a computer-automated electron microprobe. The instrument is a valuable tool in evaluating hydrocarbon resources and metal deposits.*

economically turn lignite coal and oil shale into synthetic crude oil. Phillips is participating in pilot plant studies to determine the feasibility of liquefying lignite coal by a promising new technology.

Phillips researchers have developed a new mineral logging tool to aid in the search for strategic minerals. A prototype was recently tested at the company's tungsten prospect in Nevada.

In 1981 the company also developed a device that determines the quality and yield of oil that is derived from oil shale.

### High-Technology Ventures

An important function of Phillips Research and

Development is to identify and participate in emerging technologies which may be important to the company in the long-term.

Phillips stepped up its research in solar energy in 1981 through a joint venture with AeroChem Research Laboratories for research and development of a new silicon production process. The program is expected to result in a new process for making high-purity silicon suitable for photovoltaic solar cells and semiconductors for electronic equipment.

The company also entered into an agreement with General Atomic Company to develop a new nuclear fusion process. The work will focus on a unique device for magnetically confining the very hot hydrogen



*Genetic engineer Dave Stroman is part of a Phillips research team that is working to develop biological techniques for increasing oil and natural gas production and for improving chemical processes.*



*Computer technician Lorraine Hubbard operates a color plotter that is used in developing three-dimensional graphic displays of underground formations. Such information helps reduce the odds of drilling a dry hole.*



## Research and Development

plasma of the fusion reaction. The venture, one of the very few privately funded fusion programs, offers the potential advantages of compact size and easily replaceable components.

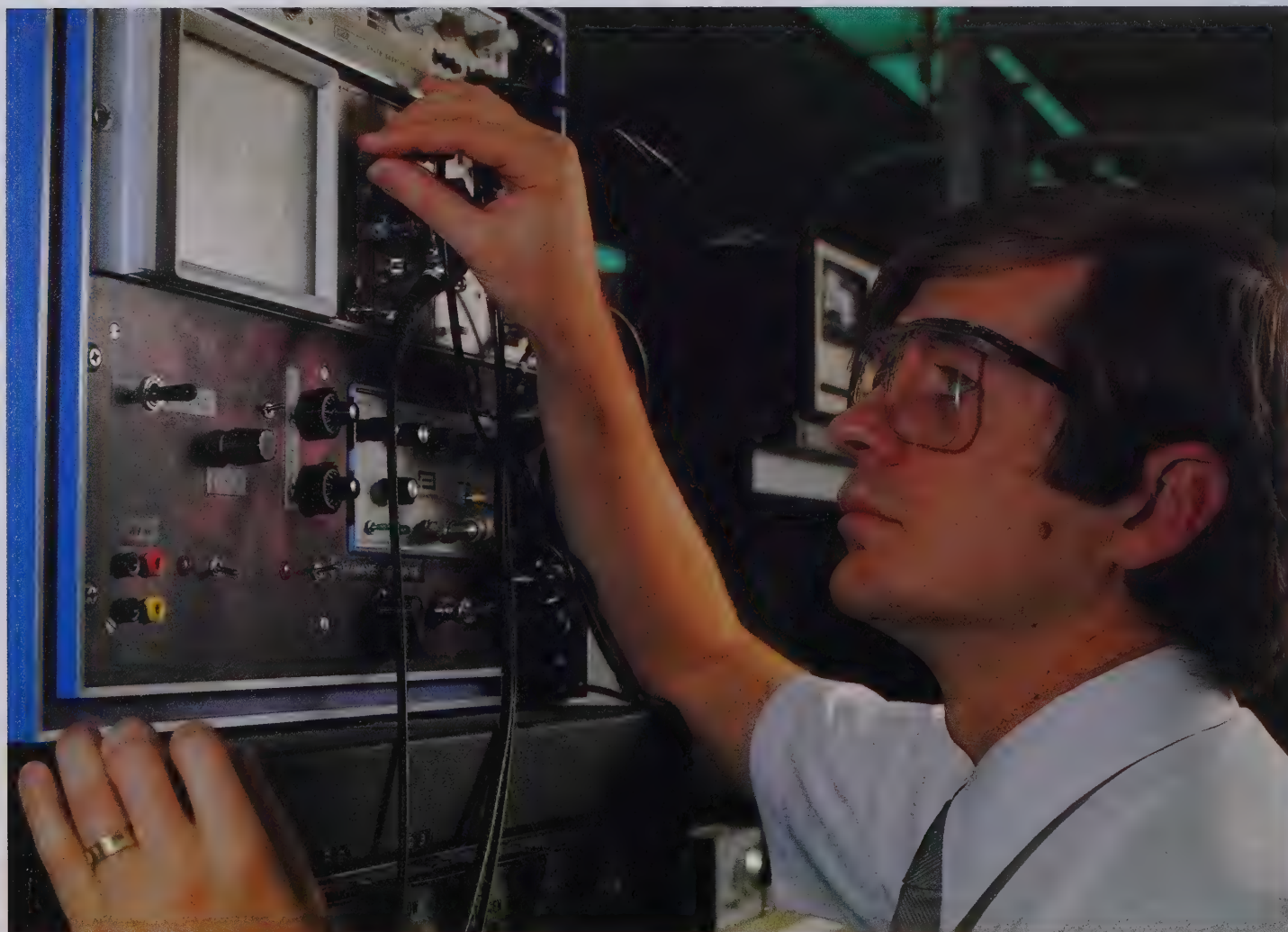
In 1981 Phillips purchased an equity interest in Salk Institute Biotechnology/Industrial Associates, Inc. Research will be directed toward developing biological techniques for increasing oil and natural gas production, improving chemical processes and bettering agricultural methods.

Massachusetts Institute of Technology continues to work with researchers of a wholly owned Phillips subsidiary, Provesta Corporation, in testing single cell protein for direct human consumption. Previously

certified as a protein supplement for animal feed, Provesta's single cell protein, which is made from methanol or ethanol, has the potential to be an important protein source in countries where malnutrition is a critical problem.

### Patents

In 1981 Phillips Research and Development received 550 patents, bringing Phillips total active U.S. and foreign patents to 8,666. The company was first in total U.S. patents issued in the petroleum industry in 1981 and also was the industry leader in the number of active U.S. patents held. This vigorous patent operation generates substantial licensing income.



*Working with sophisticated equipment in the company's new rock-water geochemistry laboratory, senior research geologist John Walters is able to simulate the natural systems that formed petroleum reservoirs and ores.*

## Oil and Gas Operations

Consistent with FASB Statement No. 19, "Financial Accounting and Reporting by Oil and Gas Producing Companies," and in accordance with regulations of the Securities and Exchange Commission (SEC), the company is making certain disclosures about its oil and gas exploration and production operations. While this information was developed with reasonable care and disclosed in good faith, because of the experimental aspects of developing such information and the subjective judgments involved, it is emphasized that some of the data are necessarily imprecise and represent only approximate amounts. Accordingly, this information may not necessarily represent the present financial condition of the company or its expected future results.

Petroleum liquids (oil) includes crude oil, condensate and natural gas liquids.

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# Management's Discussion and Analysis

## Capital Resources and Liquidity

### Financial Position

The consolidated balance sheet at December 31, 1981, presented below in a summarized financial position format and expressed in percentages is compared with the financial position of each of the three preceding years expressed in percentages.

At December 31, 1981, the company's working capital position was a deficit of \$189 million, and has been in a decline since 1978 when \$436 million of funds were generated by the sale of a minority investment in Pacific Petroleum Ltd.

The working capital position at December 31, 1981, reflects substantial amounts of cash, time deposits and short-term investments (\$895 million), and accrued taxes (\$1,182 million). While most taxes are paid currently, the company makes semi-annual income tax payments to Norway. In April 1982, a substantial portion of the December 31, 1981, cash items will be used to pay Norwegian income taxes accrued at year-end 1981.

Over the last three years, the company's total fund requirements for increased investments in properties, plants and equipment (\$5.78 billion), payment of dividends (\$818 million), other investments and purchase of company stock (\$400 million), retirement of debt (\$196 million), and to meet other cash requirements (\$117 million), have been met in substantial part by funds provided from operations (\$5.47 billion or 75% of fund needs). To provide the balance of fund needs, the company drew down

working capital (\$980 million), increased long-term debt (\$502 million), and obtained funds from other sources (\$359 million).

### Capital Expenditures

Phillips is a fully integrated oil company operating worldwide and its operations are capital intensive, requiring significant expenditures over long construction periods. Capital expenditures for properties, plants and equipment were \$2.66 billion in 1981, compared with \$1.67 billion in 1980 and \$1.45 billion in 1979.

Worldwide, Phillips capital expenditures over the past three years totaled \$5.78 billion. Geographically, three-fourths of these expenditures were made in the United States and one-fourth outside the United States. The capital expenditures for Petroleum Exploration and Production and Gas and Gas Liquids operations were 64 percent of the total; Petroleum Refining, Marketing and Transportation operations—19 percent; Chemicals operations—8 percent; Minerals—4 percent; and Other—5 percent.

Phillips authorizations for capital expenditures cover the total project, and include amounts which will be spent over the development period of such projects. Major projects for which future capital expenditures are planned include: upgrading of the Borger, Texas, refinery to allow processing of heavier crude feedstocks, and developing the Maureen field, the oil discoveries offshore the Ivory Coast in West Africa and offshore Southern California, and the Oxbow lignite mine in Louisiana.

### Financial Position Summary

December 31	Millions of Dollars	Percentages			
	1981	1981	1980	1979	1978
Working capital	\$ (189)*	(2.3)%	8.7	12.1	15.6
Investments	512	6.4	5.5	4.7	4.6
Properties, plants and equipment (net)	7,548	94.0	84.2	81.8	77.9
Deferred charges	156	1.9	1.6	1.4	1.9
Total financial position assets	8,027	100.0	100.0	100.0	100.0
Long-term debt	1,031	12.8	10.4	11.1	13.3
Other liability items	1,515	18.9	16.3	16.0	16.1
	2,546	31.7	26.7	27.1	29.4
Stockholders' equity	\$5,481	68.3%	73.3	72.9	70.6

\*Working capital is current assets (\$3,048 million) minus current liabilities (\$3,237 million).

Phillips expects to spend approximately \$2 billion in 1982, with the majority of such expenditures directed toward energy development and the remainder toward improving refining and chemical operations. Approximately three-fourths of the capital expenditures are earmarked for projects in the United States. The capital expenditures program for 1982 has been adjusted downward from the preceding year, reflecting current economic conditions.

### Funds Availability

During the year the company undertook both short and long-term financing. The company issued commercial paper and sold receivables to Phillips Petroleum Credit Corporation (Credit), a wholly-owned non-consolidated subsidiary, which also issued commercial paper. Commercial paper outstanding at year-end was \$503 million for the company and \$390 million for Credit. Long-term debt increased in 1981 primarily due to a \$200 million private placement of notes and \$144 million in borrowings for development of the Maureen field located in the United Kingdom sector of the North Sea. Borrowings through December 31, 1981, for the Maureen field development totaled \$260 million, and additional borrowings of \$40 million were available through existing arrangements.

Funds from operations are expected to continue to provide a substantial portion of future fund requirements. Management, however, expects the company's requirements for funds will exceed






internally generated funds for several years and plans to cover such deficiencies by borrowings in the public and private markets. Management believes the current deficit working capital position will not impair future operations since the company has sufficient borrowing capacity, both domestic and foreign, to cover anticipated funds deficiencies.

It is the company's intention to have a reasonable mix in its debt structure between short-term debt, primarily commercial paper and bank borrowings, and medium and long-term fixed and floating rate debt. Since April 1981, Phillips Chemical Company has had on file with the Securities and Exchange Commission, in anticipation of favorable market conditions and interest rates, a registration statement for \$350 million of long-term fixed rate debentures guaranteed by the company. In February 1982, a \$400 million syndicated revolving bank credit due in 1993 was arranged, which funds will be used for financing United Kingdom exploration and development activities, mainly development of the Maureen field. As disclosed in Note 5 to financial statements, the company and Credit have available unused credit arrangements which can be used to support the issuance of additional commercial paper or for other financing purposes. Management believes these credit arrangements can be increased if deemed appropriate.

### Results of Operations






Consolidated net income for 1981 of \$879 million was down 18 percent from the record \$1.07 billion

#### Return on Average Stockholders' Equity\*

1981	16.9%	
1980	23.8	
1979	23.3	
1978	22.2	
1977	18.8	

\*Net income divided by average stockholders' equity.

#### Percent of Debt to Capital\*

1981	16.7%	
1980	13.5	
1979	14.9	
1978	18.2	
1977	23.4	

\*Debt divided by debt plus stockholders' equity. Debt is long-term debt plus obligations under capital leases.



earned in 1980 and compares with \$891 million earned in 1979—the three highest income years in the company's history. Results for 1981 reflected lower earnings from overseas operations, mainly the result of lower crude oil and natural gas production and significantly higher exploration expenses.

Phillips major operations—Petroleum Exploration and Production, Gas and Gas Liquids, Petroleum Refining, Marketing and Transportation, and Chemicals—have each contributed significantly to net income during the past five-year period. Overall, during this period, improvements in sales prices for most products; increased production of petroleum liquids and natural gas, which reached highs in 1980 and 1979, respectively; and increased chemical sales volumes were the principal factors contributing to net income improvements. In 1981, earnings were penalized by significantly higher exploration expenses associated with the evaluation of the company's undeveloped acreage in non-producing areas; increased raw material and operating costs in the company's petroleum products and chemicals businesses, squeezing product margins; and a decline in demand for petroleum and chemical products because of increased competition in the marketplace and depressed economic conditions in both the United States and abroad.

Worldwide prices for crude oil, natural gas, and natural gas liquids have escalated significantly in recent years. Domestic crude oil prices rose as the result of decontrol, and the increase in natural gas prices reflected increases permitted under the Natural Gas Policy Act. Deteriorations in prices are now impacting earnings as the effects of decontrol on U.S. oil prices are being offset by a worldwide surplus of crude oil

which is restraining oil prices generally.

Prices have improved for domestic petroleum and chemical products, although some leveled off and others declined in the last half of 1981. Some average 1981 sales prices and percentage increases from 1980 follow: U.S. crude oil, \$31.85 per barrel, up 61 percent; Europe-Africa crude oil, \$37.97 per barrel, up 6 percent; U.S. natural gas, \$1.68 per thousand cubic feet, up 16 percent; Europe-Africa natural gas, \$3.64 per thousand cubic feet, up 16 percent; U.S. natural gas liquids, \$17.05 per barrel, up 12 percent; average wholesale prices for automotive gasoline \$1.04 per gallon, up 13 percent, and distillates, \$1.00 per gallon, up 22 percent.

Foreign currency translation after tax effects continue to impact earnings. Consolidated earnings for 1981 include a gain of \$42 million compared with losses of \$17 million in 1980, and \$14 million in 1979.

### Petroleum Exploration and Production

Phillips Petroleum Exploration and Production operations earnings for 1981 were \$430 million compared with \$536 million in 1980 and \$385 million in 1979.

Domestic earnings improved to \$351 million in 1981 compared with \$255 million in 1980 and \$169 million in 1979. The substantial improvement in 1981 was attributable primarily to significant increases in the prices of both crude oil, as the result of decontrol, and natural gas, which reflected increases permitted under the Natural Gas Policy Act; and to lower domestic dry hole and leasehold impairment expenses. Partially offsetting these improvements were higher production expenses and an increase in the federal excise tax on U.S. crude oil—or the so-called windfall profits tax—

## Net Income and Income Taxes

Year	Net Income		Income Taxes	
	Millions of Dollars	Percent Change from Prior Year	Millions of Dollars	Effective Tax Rate
<b>1981</b>	<b>\$ 879</b>	<b>(18)%</b>	<b>\$1,792</b>	<b>67%</b>
1980	1,070	20	2,170	67
1979	891	24	1,245	58
1978	718	35	989	58
1977	531	29	665	56

which more than tripled to \$409 million in 1981 from \$119 million in 1980. During the latter part of 1981 crude oil prices underwent a slight decline as a result of the worldwide surplus of crude oil.

Earnings abroad declined to \$79 million in 1981 from \$281 million in 1980 and \$216 million in 1979. The \$202 million reduction in 1981 was attributable primarily to the decline in the production of crude oil and natural gas, principally in Norway, and to significantly higher foreign exploration expenses.

### Gas and Gas Liquids

Phillips Gas and Gas Liquids operations earnings for 1981 were \$324 million compared with \$332 million in 1980 and \$119 million in 1979. Improvements in average prices in 1981 for natural gas liquids and a slight increase in domestic production were more than offset by higher costs and expenses. The company is expanding its natural gas gathering and processing facilities, and significantly higher revenues were received in 1981 from liquefied natural gas delivered under a long-term contract from a 70 percent interest liquefaction plant in Kenai, Alaska.

### Petroleum Refining, Marketing and Transportation

Petroleum Refining, Marketing and Transportation operations earnings for 1981 were \$25 million compared with \$64 million in 1980 and \$179 million in 1979. During these years Phillips experienced much higher raw material and operating costs (refinery throughput costs) and slightly lower domestic sales volumes of refined petroleum products due to competitive market conditions. Although the effect of increased costs was partially offset by product price improvements, prices have leveled off and in some cases declined in the last half of 1981, impacting product margins.

### Chemicals

Earnings for Phillips Chemicals operations for 1981 were \$90 million compared with \$111 million in 1980 and \$178 million in 1979. Revenues increased in every product line, but higher manufacturing and feedstock costs reduced profit margins, and sales volumes for most chemical products declined following the general economic trends prevailing in the United States and abroad.

Although feedstock costs have escalated, two major

### Five-Year Summary of Net Income

Years Ended December 31

	Millions of Dollars				
	1981	1980	1979	1978	1977
<b>Petroleum Exploration and Production (1)</b>					
United States	\$351	255	169	174	186
Outside United States	79	281	216	145	97
	430	536	385	319	283
<b>Gas and Gas Liquids (1)</b>					
United States	328	327	114	103	81
Outside United States	(4)	5	5	1	1
	324	332	119	104	82
<b>Petroleum Refining, Marketing and Transportation</b>					
United States	16	17	131	34	60
Outside United States	9	47	48	6	12
	25	64	179	40	72
<b>Worldwide Petroleum</b>	779	932	683	463	437
<b>Worldwide Chemicals</b>	90	111	178	59	68
<b>Minerals (1)</b>	(61)	(34)	(20)	(21)	(16)
<b>Other (1) (2)</b>	71	61	50	217	42
	\$879	1,070	891	718	531

(1) The years 1977-1980 have been restated to report separately Gas and Gas Liquids (formerly included in Petroleum Exploration and Production) and Minerals (formerly included in Other).

(2) Other includes equity in earnings of affiliated companies and gains and losses from other corporate activities (including in 1978 net income of \$170 million from sale of Pacific Petroleum Ltd. stock).



## Exploratory Costs and Leasehold Impairment

	Millions of Dollars		
	1981	1980	1979
Geological and geophysical expenses	<b>\$275</b>	184	131
Impairment of leasehold investments	<b>40</b>	94	136
Dry hole costs	<b>202</b>	185	116
Lease rentals	<b>18</b>	18	10
	<b>\$535</b>	481	393

strengths of the company's chemicals business are that approximately two-thirds of the feedstock needs for chemicals operations come from the company's own sources, and that the company has the operating capability and flexibility for upgrading the raw materials.

### Minerals

Minerals activities reflected losses of \$61 million in 1981, \$34 million in 1980 and \$20 million in 1979, as Phillips continues to explore the opportunities for alternate fuels with its operations in lignite coal, geothermal and oil shale. While some commercial developments are under way, initial revenues are not expected until the mid-1980s. In 1981, Phillips placed its uranium mine in northwestern New Mexico on standby status. The company will continue to monitor and evaluate current market conditions in order to determine if a change should be made in the status of its uranium operations.

### Other

Other operations contributed \$71 million to net income in 1981, compared with \$61 million in 1980, and \$50 million in 1979. These operations include earnings from Walton Insurance Limited and Phillips Petroleum Credit Corporation; equity in earnings of other affiliated companies; the results of all other corporate activities including interest earned on time deposits and short-term investments; and interest expense on borrowings.

Equity in earnings of affiliated companies in Other operations included a foreign currency translation gain after taxes of \$52 million in 1981, compared with a gain of \$2 million in 1980 and a loss of \$23 million in 1979. Results for 1981 were affected adversely by higher interest expense on borrowings and a decline in earnings of Walton Insurance Limited.

## Exploratory Costs and Leasehold Impairment

Over the past five years Phillips has intensified its worldwide exploration for petroleum reserves and has expanded its search for alternate energy fuels in the United States to include lignite coal, uranium, geothermal and oil shale. Within the last two years, the company has substantially expanded its acreage position—especially in the United States—with the objective of strengthening its reserve base in oil and natural gas. The company is now evaluating the potential of this acreage through seismic surveys and actual drilling. Acreage acquisition and evaluation are costly and time-consuming efforts that involve long lead times and penalize current earnings. Certain of these exploratory costs are expensed as incurred while others are capitalized or expensed depending upon the success or failure of the venture. A comparison of the components of exploratory costs and leasehold impairment for the last three years is shown above.

### Provisions for Income Taxes

The 1981 provision for income taxes decreased from 1980 due principally to lower pretax foreign source income. Although domestic and foreign source income results were not the same, the total provision for income taxes as a percentage of total income before income taxes (the effective income tax rate) was 67 percent for both 1981 and 1980. The effective tax rate for 1979 was 58 percent.

### Changing Prices and the Effects of Inflation

Conventional financial reporting, which is based upon historical dollars, does not reflect the continuing effects of inflationary costs and changes in the purchasing power of the dollar. Supplementary information is provided on pages 67 and 68.

## Selected Financial Data

	Millions of Dollars Except Per Share Amounts				
	1981	1980	1979	1978	1977
Sales and other operating revenues	\$15,966	13,377	9,503	6,998	6,284
Net income	879	1,070	891	718*	531
Net income per share of common stock	5.78	7.01	5.77	4.66*	3.46
Total assets	11,264	9,844	8,519	6,834	5,742
Long-term obligations	1,100	773	745	797	923
Cash dividends declared per share of common stock	2.20	1.80	1.35	1.20	.975

\*Includes net income of \$170 million or \$1.10 per share from sale of Pacific Petroleum Ltd. stock.

## Stock Prices and Dividends Per Share—Unaudited

Quarter	1981			1980		
	Stock Price		Dividends	Stock Price		Dividends
	High	Low		High	Low	
First	\$59½	43¾	.55	61½	39½	.45
Second	47¼	34	.55	52	37⅝	.45
Third	48⅞	35⅞	.55	49⅞	39¾	.45
Fourth	45⅞	37⅞	.55	62⅞	44⅞	.45

Number of Stockholders at January 31, 1982

120,727

Phillips common stock, the company's only class of voting securities, is traded primarily on the New York Stock Exchange. Future dividends depend on future earnings, the financial condition of the company and other factors.

## Report of Certified Public Accountants

The Board of Directors and Stockholders  
Phillips Petroleum Company

We have examined the accompanying consolidated balance sheets of Phillips Petroleum Company at December 31, 1981 and 1980 and the related consolidated statements of income and earnings employed in the business and changes in financial position for each of the three years in the period ended December 31, 1981. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the statements mentioned above present fairly the consolidated financial position of Phillips Petroleum Company at December 31, 1981 and 1980, and the consolidated results of operations and changes in financial position for each of the three years in the period ended December 31, 1981, in conformity with generally accepted accounting principles applied on a consistent basis during the period.

*Arthur Young & Company*

Tulsa, Oklahoma  
February 12, 1982



# Consolidated Statements of Income and Earnings Employed in the Business

PHILLIPS PETROLEUM COMPANY

Years Ended December 31

Millions of Dollars

	1981	1980	1979
<b>Revenues</b>			
Sales and other operating revenues	\$15,966	13,377	9,503
Equity in earnings of affiliated companies	97	47	29
Other revenues	225	289	213
Total Revenues	16,288	13,713	9,745

## Costs and Expenses

Purchased crude oil and products	9,020	6,755	4,805
Production and operating expenses	2,104	1,849	1,402
Exploratory costs and leasehold impairment	535	481	393
Selling, general and administrative expenses	491	420	367
Depreciation, depletion, amortization and retirements	616	559	395
Taxes other than income taxes	649	303	150
Interest and expense on indebtedness	202	106	97
Total Costs and Expenses	13,617	10,473	7,609
Income before income taxes	2,671	3,240	2,136
Provision for income taxes	1,792	2,170	1,245
<b>Net Income</b>	879	1,070	891

## Earnings Employed in the Business

At beginning of year	4,348	3,553	2,870
Dividends declared and paid (1981—\$2.20 a share; 1980—\$1.80 a share; 1979—\$1.35 a share)	(335)	(275)	(208)
At end of year	\$ 4,892	4,348	3,553

<b>Net Income Per Share of Common Stock</b>	\$ 5.78	7.01	5.77
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<b>Average Shares Outstanding</b> (in thousands)	152,181	152,670	154,427
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See accounting policies and notes to financial statements.

# Consolidated Balance Sheets

PHILLIPS PETROLEUM COMPANY

At December 31

	Millions of Dollars	
	1981	1980
<b>Assets</b>		
<b>Current Assets</b>		
Cash, including time deposits (1981 — \$757; 1980 — \$1,262)	\$ 848	1,415
Short-term investments	47	56
Accounts and notes receivable (less allowances: 1981 — \$8; 1980 — \$13)	1,126	1,422
Inventories	883	696
Prepaid expenses and other current assets	144	105
<b>Total Current Assets</b>	<b>3,048</b>	<b>3,694</b>
Investments and Long-Term Receivables	512	367
Properties, Plants and Equipment (less depreciation, depletion and amortization)	7,548	5,675
Deferred Charges	156	108
<b>Total Assets</b>	<b>\$11,264</b>	<b>9,844</b>

## Liabilities

<b>Current Liabilities</b>		
Accounts payable	\$ 1,375	1,313
Notes payable	515	8
Long-term debt and obligations due within one year	41	60
Accrued income and other taxes	1,182	1,567
Other accruals	124	157
<b>Total Current Liabilities</b>	<b>3,237</b>	<b>3,105</b>
Long-Term Debt	1,031	698
Other Long-Term Liabilities	397	270
Obligations under Capital Leases	69	75
Accrued Contingent Liabilities	235	165
Deferred Income Taxes	710	491
Other Deferred Credits	77	90
Minority Interest in Consolidated Subsidiaries	27	13
<b>Total</b>	<b>5,783</b>	<b>4,907</b>

## Stockholders' Equity

Common Stock (\$1.25 par value)		
Shares authorized (200,000,000)		
Shares issued (154,449,429)	193	193
Capital in Excess of Par Value of Common Stock	511	511
Earnings Employed in the Business	4,892	4,348
	5,596	5,052
Treasury Stock (at cost) (1981 — 2,268,217 shares; 1980 — 2,269,197 shares)	(115)	(115)
<b>Total Stockholders' Equity</b>	<b>5,481</b>	<b>4,937</b>
<b>Total Liabilities and Stockholders' Equity</b>	<b>\$11,264</b>	<b>9,844</b>

The company follows the successful efforts method of accounting for its oil and gas operations.  
See accounting policies and notes to financial statements.



# Consolidated Statements of Changes in Financial Position

PHILLIPS PETROLEUM COMPANY

Years Ended December 31

Millions of Dollars

	1981	1980	1979
<b>Funds Provided from Operations Consisted of</b>			
Net income	\$ 879	1,070	891
Non-cash items included in earnings, as follows:			
Depreciation, depletion, amortization and retirements	616	559	395
Dry hole costs and leasehold impairment	242	279	252
Other	217	20	54
	<b>1,954</b>	<b>1,928</b>	<b>1,592</b>

<b>While Funds Were Expended for</b>			
Properties, plants and equipment	2,664	1,666	1,454
Investments	98	147	40
Reduction of long-term borrowings	46	66	84
Dividends to company stockholders	335	275	208
Purchase of company stock	—	115	—
Other	44	35	38
	<b>3,187</b>	<b>2,304</b>	<b>1,824</b>
<b>Which Left a Deficiency of</b>	<b>1,233</b>	<b>376</b>	<b>232</b>

<b>Additional Funds Were Provided from</b>			
Long-term borrowings	377	95	30
Property sales and retirements	44	88	60
Sale of investments	12	69	36
Other	22	5	23
	<b>455</b>	<b>257</b>	<b>149</b>
<b>Which Resulted in (Decreased) Working Capital of</b>	<b>\$ (778)</b>	<b>(119)</b>	<b>(83)</b>

<b>Working Capital Changes</b>			
Increase (Decrease) in Current Assets			
Cash and short-term investments	\$ (576)	172	164
Accounts and notes receivable	(296)	(9)	586
Inventories	187	92	93
Prepaid expenses and other current assets	39	53	(18)
(Increase) Decrease in Current Liabilities			
Accounts payable	(62)	(69)	(448)
Notes payable	(507)	10	(16)
Long-term debt and obligations due within one year	19	18	6
Taxes and other accruals	418	(386)	(450)
<b>(Decrease) in Working Capital</b>	<b>\$ (778)</b>	<b>(119)</b>	<b>(83)</b>

See accounting policies and notes to financial statements.

# Accounting Policies

## **Consolidation Principles and Investments—**

The consolidated financial statements include the accounts of companies owned more than 50 percent except for an insurance company and a credit company. Investments in these two companies, in companies owned 20 percent to 50 percent, inclusively, and in corporate joint ventures are accounted for using the equity method of accounting (affiliated companies). Investments in other companies are carried at cost except that equity securities for which quoted prices are available are carried at the lower of aggregate cost or market.

**Inventories—**Crude oil, petroleum products, chemicals and merchandise are priced at cost, which is lower than market in the aggregate, mainly on the last-in, first-out (LIFO) basis. Materials and supplies are priced at or below average cost.

**Oil and Gas Exploration and Development—**Oil and gas exploration and development costs are accounted for using the successful efforts method of accounting.

**Property Acquisition Costs—**Oil and gas leasehold acquisition costs are capitalized. Leasehold impairment is recognized based upon unsuccessful exploratory experience. Upon discovery of commercial reserves, leasehold costs are transferred to producing properties.

**Exploratory Costs—**Geological and geophysical expenses and the costs of carrying and retaining undeveloped properties are charged against income as incurred.

Exploratory drilling costs are capitalized when incurred. If exploratory wells are determined to be commercially unsuccessful (dry holes), applicable costs are expensed.

**Development Costs—**Costs incurred to drill and equip development wells, including unsuccessful development wells, are capitalized.

**Depletion—**Leasehold costs of producing properties are depleted on the unit-of-production method based on estimated proved recoverable oil and gas reserves.

Depletion of intangible development costs is based on the unit-of-production method using the estimated proved developed recoverable oil and gas reserves.

**Depreciation and Amortization—**Depreciation and amortization of properties, plants and equipment, including assets under capital leases, are determined by the group straight-line method, individual unit straight-line method and the unit-of-production method, applying the method considered most appropriate for each type of property.

**Property Dispositions—**When complete units of depreciable property are retired or sold, accumulated depreciation is reduced by the applicable amounts and any profit or loss is credited or charged to income. When less

than complete units of depreciable property are disposed of or retired, the difference between asset cost and salvage value is charged or credited to accumulated depreciation.

**Non-Mineral Leases—**Capital lease obligations are stated primarily at fair value at inception and accounted for as properties, plants and equipment and as obligations under capital leases.

**Dismantlement Costs—**The estimated costs, net of salvage values, of dismantling facilities are accrued currently, using the unit-of-production method and the straight-line method, applying the method considered most appropriate for each type of property.

**Foreign Currency Translation—**In general, current assets (except inventories), current liabilities, long-term receivables and long-term debt are translated into U.S. dollars at currency exchange rates prevailing at balance sheet dates. Inventories, other assets and liabilities are translated at historical currency exchange rates. Revenues, costs and expenses are translated monthly using current exchange rates, except for costs related to balance sheet items which are translated at historical rates. Exchange gains and losses including gains and losses on forward exchange contracts are included in income in the period in which they occur.

**Retirement Income Plans—**Current service costs and amortization of prior service costs for defined benefit plans covering U.S. employees are accrued based on actuarial studies. For 1981 the amortization period for the parent company plan prior service costs was 25 years. For 1980 and 1979 such costs were amortized over 10 years. For plans of subsidiary companies the amortization period is 20 to 25 years. The majority of plans for employees outside the United States are fully insured and are accounted for on a cash basis.

**Interest Costs—**Interest costs relating to significant long-term capital projects are capitalized.

**Income Taxes—**Deferred taxes are provided for all significant timing differences in the recognition of revenues and expenses for tax and financial purposes. The allowable investment tax credit is applied currently as a reduction of the provision for income taxes. No provision for U.S. income taxes is made on undistributed earnings of certain companies and corporate joint ventures because of reinvestment plans for such funds.

**Net Income Per Share—**Net income per share of common stock is calculated based upon the daily weighted average of the number of shares outstanding during the year.



## Notes to Financial Statements

### Note 1—Inventories

Inventories at December 31, consisted of the following:

	Millions of Dollars	
	1981	1980
Crude oil, petroleum products and chemicals	\$577	509
Merchandise	25	20
	602	529
Materials and supplies	281	167
	\$883	696

The cost of inventories calculated by the first-in, first-out method exceeded the stated value of inventories determined under the last-in, first-out method by approximately \$1,102 million at December 31, 1981 and \$860 million at December 31, 1980.

### Note 2—Investments and Long-Term Receivables

Components of investments and long-term receivables at December 31, were as follows:

	Millions of Dollars	
	1981	1980
Investments in and advances to affiliated companies:		
Phillips Petroleum Credit Corporation	\$107	30
Walton Insurance Limited	89	90
Companies owned 50 percent or less	229	161
Long-term receivables	76	74
Other investments	11	12
	\$512	367

At December 31, 1981, investments in affiliated companies exceeded the company's equity in the net assets of such companies by \$14 million; of this amount \$10 million is being amortized. Earnings employed in the business at December 31, 1981 include \$175 million relating to undistributed earnings of affiliated companies. Dividends received from affiliated companies were \$31 million in 1981, \$27 million in 1980 and \$24 million in 1979.

Phillips Petroleum Credit Corporation (Credit), formed in 1980, purchases certain accounts receivable from Phillips with funds obtained from short-term borrowings. At December 31, 1981, Credit held accounts receivable acquired from Phillips totaling \$446 million (\$126 million at year-end 1980) and had short-term debt of \$390 million (\$103 million at year-end 1980). Total revenues for 1981 and 1980 were \$60 million and \$2 million, respectively. The net income for 1981 was \$7 million and was minimal for 1980.

Walton Insurance Limited (Walton) participates in the international reinsurance business including insuring certain Phillips risks. Condensed financial data of Walton follows:

	Millions of Dollars		
	1981	1980	1979
Premiums earned from:			
International reinsurance	\$ 79	50	35
Phillips	21	21	17
Investment income	21	15	11
Net income (loss)	(1)	19	23
Total assets	199	160	124
Net assets	89	90	76

### Note 3—Properties, Plants and Equipment

The company's investments in properties, plants and equipment (at cost, except for capital leases) at December 31, are summarized as follows:

	Millions of Dollars	
	1981	1980
Energy Resources	\$ 7,197	5,494
Petroleum Products	2,258	2,005
Chemicals	1,479	1,288
Other	480	319
	11,414	9,106
Less accumulated depreciation, depletion and amortization	3,866	3,431
	\$ 7,548	5,675

The above schedule includes assets under capital leases and related accumulated amortization, respectively, of \$179 million and \$113 million for 1981 and \$174 million and \$106 million for 1980.

### Note 4—Interest Costs

In 1981 interest costs of \$262 million were incurred, of which \$60 million was capitalized. The amount of interest capitalized in 1980 did not have a material effect on net income for that year.

### Note 5—Long-Term Debt

Long-term debt due after one year at December 31, consisted of the following:

	Millions of Dollars	
	1981	1980
8 <sup>7</sup> / <sub>8</sub> % Debentures Due 2000	\$ 250	250
7 <sup>5</sup> / <sub>8</sub> % Debentures Due 2001	176	175
5 <sup>5</sup> / <sub>8</sub> % Marine Terminal Revenue Bonds, Series 1977 Due 2007	20	20
Notes payable to banks, insurance companies and others:		
At 17%–21 <sup>3</sup> / <sub>16</sub> % due through 1992	—	33
At 15%–16 <sup>1</sup> / <sub>2</sub> % due through 1991	230	67
At 13%–14 <sup>9</sup> / <sub>16</sub> % due through 1993	162	12
At 4%–12 <sup>1</sup> / <sub>2</sub> % due through 1993	171	122
Purchase obligations	22	19
	\$1,031	698

Maturities of long-term debt for the next five years are: 1982—\$23 million (included in current liabilities); 1983—\$27 million; 1984—\$40 million; 1985—\$50 million; 1986—\$168 million.

Arrangements existed at year-end 1981 for the company to borrow an additional \$40 million to finance a portion of its share of expenditures for the development of the Maureen field located in the United Kingdom sector of the North Sea; cumulative borrowings were \$260 million. Repayment will commence in 1983 and continue through 1993. Interest rates will change periodically over the life of the borrowings and will be based on the rate offered by prime banks in the London Interbank Market increased by an applicable margin.

The company also has available unused lines of credit totaling \$301 million for which it pays no commitment fees. The terms and conditions of any borrowing on these credit lines are normally agreed upon at the time of borrowing. These credit lines can be withdrawn or renewed at the option of the bank or canceled at the option of the company. In addition, during 1981 Phillips and Phillips Petroleum Credit Corporation (Credit) arranged with a group of international banks a \$1 billion multicurrency revolving credit agreement. The revolving credit agreement, which extends through mid-1989, requires a commitment fee of less than 1/2 of 1 percent per annum on the unused portion of the credit line. At December 31, 1981 no borrowing was outstanding under this agreement. Approximately 60 percent of the above credit arrangements were being used as support for issuance of commercial paper by the company and Credit or for other short-term borrowing arrangements. The remainder of such credit arrangements was available for further use as of December 31, 1981.



The company also has various arrangements with several banks worldwide where it maintains average balances as compensation for banking services. These balances are not legally restricted as to withdrawal and are subject to continual review and adjustment based upon levels of services and activity. In the aggregate, they are not material in relation to total liquid assets.

#### **Note 6—Other Long-Term Liabilities**

Other long-term liabilities consist of accrued liabilities for dismantling facilities, principally offshore exploration and production.

#### **Note 7—Non-Mineral Leases**

The company leases bulk and service stations, tankers, computers and other facilities and equipment under both capital and operating leases.

At December 31, 1981, future minimum rental payments due under noncancelable leases were as follows:

	Millions of Dollars	
	Capital	Operating
1982	\$ 25	33
1983	20	26
1984	16	19
1985	15	12
1986	11	10
Remaining years	36	51
Total*	123	151
Less estimated executory costs	1	
Net payments	122	
Less imputed interest	35	
Present value	87	
Amount included in current liabilities	18	
Obligations under capital leases	\$ 69	

\*Minimum payments have not been reduced by minimum sublease rentals due under noncancelable subleases of \$13 million for capital leases and \$6 million for operating leases.

Operating lease rental expense for the years ended December 31, was as follows:

	Millions of Dollars		
	1981	1980	1979
Total rentals	\$76	64	56
Less sublease rentals	9	11	9
Net rentals	\$67	53	47

#### **Note 8—Litigation and Contingent Liabilities**

A number of legal proceedings are pending in various courts or agencies in which the company or a subsidiary appears as plaintiff or defendant, including civil class action suits filed by the states of Florida, California, Arizona, Oregon and Washington (all consolidated for pretrial procedures in the U.S. District Court at Los Angeles, California) against numerous petroleum companies, alleging extensive violations of the antitrust laws relating to the production and refining of crude oil, and the transportation and marketing of crude oil and refined products.

At December 31, 1981 and 1980, the company was contingently liable for \$51 million and \$49 million, respectively, principally for obligations of affiliated companies and others. In addition, the company had contingent liabilities at both dates resulting from throughput agreements with pipeline and processing companies in which it holds stock interests. Under these agreements Phillips may be required to provide any such company with additional funds through advances against future charges for the shipping or processing of petroleum liquids, natural gas and refined products.

While it is not possible at this time to establish the ultimate amount of liability with respect to contingent liabilities, including those related to legal proceedings, the company is of the opinion that the aggregate amount of any such liabilities for which provision has not been made will not have a material adverse effect on its financial position.

## Note 9—Taxes

	Millions of Dollars		
	1981	1980	1979
<b>Taxes other than income taxes</b>			
Property	\$ 49	40	35
Crude oil excise	409	119	—
Production	114	78	55
Payroll	46	39	34
Other	31	27	26
	649	303	150
<b>Income taxes</b>			
Federal			
Current	194	327	224
Deferred	176	71	92
Foreign			
Current	1,330	1,788	911
Deferred	54	(61)	(11)
State and local (current)	38	45	29
	1,792	2,170	1,245
Total taxes charged to income	2,441	2,473	1,395
Excise taxes collected on the sale of petroleum products and paid to taxing agencies	128	141	156
	\$2,569	2,614	1,551
Deferred income taxes on timing differences recognized were:			
Excess of tax over financial depreciation	\$ 149	97	75
Excess of intangible drilling and certain other costs over financial provisions	122	49	44
Financial provision for dismantlement	(78)	(92)	(37)
Other	37	(44)	(1)
	\$ 230	10	81

A reconciliation between the provision for income taxes and the amount of income tax determined by applying the federal statutory rate to income before income taxes follows:

	Millions of Dollars			Percent of Pretax Income		
	1981	1980	1979	1981	1980	1979
Income before income taxes:						
United States	\$1,012	1,007	809	37.9%	31.1	37.9
Outside United States	1,659	2,233	1,327	62.1	68.9	62.1
	\$2,671	3,240	2,136	100.0%	100.0	100.0
Federal statutory income tax	\$1,229	1,490	983	46.0%	46.0	46.0
Foreign taxes in excess of federal statutory rate	669	756	340	25.0	23.3	15.9
Investment and energy tax credits	(87)	(80)	(70)	(3.2)	(2.4)	(3.2)
Other	(19)	4	(8)	(.7)	.1	(.4)
	\$1,792	2,170	1,245	67.1%	67.0	58.3



Deferred taxes have not been provided for the company's equity in undistributed earnings of certain companies and corporate joint ventures because of reinvestment plans for such funds. At December 31, 1981, 1980 and 1979 the aggregate of these funds was \$213 million, \$239 million and \$184 million, respectively, excluding amounts which if remitted in the near future would result in little or no tax because of available tax credits and other deductions.

The Internal Revenue Service has examined the company's U.S. income tax returns through 1969 and all deficiencies have been settled. The company is of the opinion that any adjustments made to the company's returns for subsequent years will not have a material effect on the financial position of the company.

#### Note 10—Stockholders' Equity

Changes in common stock and in capital in excess of par value of common stock follow:

	Common Stock			Millions of Dollars
	Shares Issued	Shares Held in Treasury	Shares Outstanding	Capital in Excess of Par Value of Common Stock
December 31, 1978	154,449,429	22,716	154,426,713	\$511
Issued under Incentive Compensation Plans		(1,018)	1,018	—
December 31, 1979	154,449,429	21,698	154,427,731	511
Purchased for the treasury		2,250,176	(2,250,176)	—
Issued under Incentive Compensation Plans		(2,677)	2,677	—
December 31, 1980	154,449,429	2,269,197	152,180,232	511
Issued under Incentive Compensation Plans		(980)	980	—
<b>December 31, 1981</b>	<b>154,449,429</b>	<b>2,268,217</b>	<b>152,181,212</b>	<b>\$511</b>

#### Note 11—Maintenance and Repairs

Maintenance and repairs charged to expense amounted to \$440 million in 1981, \$360 million in 1980 and \$280 million in 1979.

#### Note 12—Retirement Income Plans

The parent company and its subsidiaries have defined benefit retirement plans covering substantially all employees. Plans for U.S. employees are being funded based on pension costs accrued as determined by actuarial studies. The majority of plans for employees outside the United States are fully insured. Charges against income for the funding of defined benefit plans were \$77 million in 1981, \$96 million in 1980, \$91 million in 1979, and \$55 million in 1978. In 1981 a decrease of \$36 million for the parent company plan due to extending the amortization period for prior service costs was partially offset by an increase of \$16 million because of plan amendments, higher compensation and more participation.

Accumulated benefits and net assets of plans for U.S. employees at January 1, are presented below:

	Millions of Dollars			
	Parent Company		Subsidiary Companies	
	1981	1980	1981	1980
Actuarial present value of accumulated plan benefits:				
Vested	\$570	494	38	32
Nonvested	86	50	1	1
	<b>\$656</b>	<b>544</b>	<b>39</b>	<b>33</b>
Net assets available for benefits	<b>\$967</b>	<b>720</b>	<b>48</b>	<b>34</b>

The above actuarial present values of accumulated plan benefits were determined assuming an 8 percent rate of return for the parent company plan and 6 percent for plans of subsidiary companies. In determining these values, neither future years of service nor future salary increases are included. However, for purposes of funding and pension cost accrual both factors are considered and, for the parent company plan, a 6 percent rate of return is used.

### **Note 13—Employee Stock Ownership Plan**

The Employee Stock Ownership Plan provides company stock for eligible employees of Phillips Petroleum Company and certain subsidiaries. The plan is funded by additional investment tax credits available under the provisions of the Tax Reduction Act of 1975; therefore, the plan has no effect on net income. A tax credit of 1 percent is allowed for regular contributions and an additional tax credit of one-half percent is allowed for contributions which are matched by employee deposits.

Effective January 1, 1983, in accordance with the Economic Recovery Tax Act of 1981, employee deposits will no longer be allowed and the tax credit will be equal to a percentage of the aggregate compensation for all employees covered by the plan. These provisions of the 1981 Act are scheduled to apply through 1987.

### **Note 14—Incentive Compensation Plans**

The Incentive Compensation Plan provides for awards to key employees in recognition of outstanding contributions to the company's success. Awards, as approved by the Board of Directors, may be in the form of cash or shares of the company's common stock and may not exceed a specified percent by which net income exceeds an expressed percent of borrowed and invested capital, as defined by the plan. Provisions of \$9 million, \$7 million and \$8 million were made against earnings in 1981, 1980 and 1979, respectively, in connection with the operation of the plan. The provisions were substantially less than the maximum permitted under the plan.

The Long-Term Incentive Compensation Plan provides for the granting of contingent awards to certain key employees as incentives to improve the company's long-term profitability and growth. The amount of awards to be paid is determined, at the close of each performance period (five years), on the basis of performance measurement criteria established by the Board of Directors at the beginning of the performance period. Amounts charged against earnings and credited to a reserve in anticipation of awards which may become payable under the plan were \$6 million and \$5 million in 1980 and 1979, respectively. Application of the same performance criteria returned \$2 million to income in 1981.

### **Note 15—Research and Development Costs**

Research and development costs charged to expense were \$118 million in 1981, \$84 million in 1980 and \$70 million in 1979.

### **Note 16—Foreign Currency Translation**

Foreign currency translation gains and losses, other than those related to income tax accounts, are included as appropriate in equity in earnings of affiliated companies and costs and expenses. Income taxes applicable to such gains and losses and the translation effects on income tax liabilities are included in the provision for income taxes. Exchange gains and losses, including translation gains and losses, net of tax effects, increased earnings \$42 million in 1981 and reduced earnings \$17 million in 1980 and \$14 million in 1979.

The Financial Accounting Standards Board (FASB) Statement No. 52, "Foreign Currency Translation," which was issued in December 1981, can be applied either prospectively or retroactively. The Statement becomes mandatory for fiscal years beginning after December 14, 1982, although earlier application is encouraged. The company did not adopt FASB Statement No. 52 for 1981.

### **Note 17—Costs and Revenues Relating to Oil and Gas Producing Activities**

Costs and revenues relating to oil and gas producing activities for 1981, 1980 and 1979, are presented on pages 59, 62, and 63.

### **Note 18—Segment and Geographic Information**

The company is involved primarily in Petroleum and Chemicals operations. Petroleum operations are fully integrated and involve the discovery, production, transportation and refining of crude oil and natural gas together with the subsequent transportation and marketing of products derived therefrom. This segment also provides feedstock for the production of petrochemicals. Chemicals operations involve the manufacture and marketing of a broad range of petroleum-based chemical products including synthetic rubber, carbon black, plastics, fertilizers, synthetic fibers and other products. The Other segment includes coal, uranium, geothermal and oil shale activities.



Segment and geographic information for 1981, 1980 and 1979 is presented on pages 55 and 56. A reconciliation to the financial statements follows:

	Millions of Dollars					
	Net Income			Total Assets		
	1981	1980	1979	1981	1980	1979
Operating profit	\$ 2,762	3,246	2,173			
Identifiable assets				9,589	7,820	6,837
Equity in earnings and assets of affiliated companies	97	47	29	425	281	152
Other revenues	177	184	143			
General corporate expenses, interest and income taxes	(2,157)	(2,407)	(1,454)			
Corporate assets				1,250	1,743	1,530
	\$ 879	1,070	891	11,264	9,844	8,519
Return on average total assets	8.2%	11.5	12.0			

Sales and other operating revenues by business segment and by geographic area include both sales to customers outside the consolidated companies and sales within the consolidated companies which are generally at market value. In computing operating profit, none of the following items have been added or deducted: equity in earnings of affiliated companies, general corporate revenues and expenses, interest and income taxes. The company's share of assets and earnings of affiliated companies, which are vertically integrated with operations of the company, is not material.

Identifiable assets by business segment and geographic area are those assets that are used in the company's operations in each segment or area. Corporate assets are principally cash and short-term investments.

Intersegment and intergeographic sales and profits in inventory are eliminated in determining consolidated revenue and identifiable asset totals.

## Selected Quarterly Financial Data—Unaudited

	Millions of Dollars Except Per Share Amounts			
	Sales and Other Operating Revenues	Income before Income Taxes	Net Income	Net Income Per Share of Common Stock
<b>1981</b>				
First quarter	\$ 4,120	814	271	1.78
Second quarter	3,971	654	230	1.51
Third quarter	3,822	598	192	1.26
Fourth quarter	4,053	605	186	1.23
	\$15,966	2,671	879	5.78
<b>1980</b>				
First quarter	\$ 3,291	922	285	1.85
Second quarter	3,153	858	215	1.41
Third quarter	3,155	734	283	1.86
Fourth quarter	3,778	726	287	1.89
	\$13,377	3,240	1,070	7.01
<b>1979</b>				
First quarter	\$ 1,946	407	177	1.15
Second quarter	2,160	501	215	1.39
Third quarter	2,449	565	193	1.25
Fourth quarter	2,948	663	306	1.98
	\$ 9,503	2,136	891	5.77

# Analysis of Results by Business Segment

Years Ended December 31

Millions of Dollars

	1981	1980	1979
<b>Sales and Other Operating Revenues to Outside Customers</b>			
Petroleum operations—United States	\$10,568	8,747	5,806
Petroleum operations—outside United States	2,878	2,345	1,611
Chemicals	2,470	2,249	2,057
Other	50	36	29
	15,966	13,377	9,503
<b>Sales within Phillips between Segments</b>			
Petroleum operations—United States	726	634	512
Petroleum operations—outside United States	478	1,325	593
Chemicals	257	225	233
Other	36	29	22
	1,497	2,213	1,360
Eliminations (intersegment)	(1,497)	(2,213)	(1,360)
Total	\$15,966	13,377	9,503
<b>Operating Profit</b>			
Petroleum operations—United States	\$ 1,330	1,133	741
Petroleum operations—outside United States	1,397	2,021	1,189
Chemicals	140	162	289
Other	(104)	(61)	(39)
Eliminations (intersegment)	(1)	(9)	(7)
	\$ 2,762	3,246	2,173
<b>Net Income</b>	\$ 879	1,070	891
<b>Assets Identifiable by Business Segment</b>			
Petroleum operations—United States	\$ 5,299	3,998	3,453
Petroleum operations—outside United States	2,210	2,005	1,765
Chemicals	1,544	1,384	1,272
Other	570	465	370
Eliminations (intersegment)	(34)	(32)	(23)
	\$ 9,589	7,820	6,837
<b>Depreciation, Depletion, Amortization and Retirements</b> (see note on page 56)			
Petroleum operations—United States	\$ 360	389	364
Petroleum operations—outside United States	401	371	215
Chemicals	62	64	57
Other	31	14	11
Corporate	4	—	—
<b>Capital Expenditures—Properties, Plants and Equipment</b>			
Petroleum operations—United States	\$ 1,729	895	845
Petroleum operations—outside United States	521	423	392
Chemicals	166	181	114
Other	137	107	85
Corporate	111	60	18



## Analysis of Results by Geographic Area

Years Ended December 31

Millions of Dollars

	1981	1980	1979
<b>Sales and Other Operating Revenues to Outside Customers</b>			
United States	\$12,564	10,589	7,539
Europe-Africa	3,044	2,566	1,815
Other areas	358	222	149
	15,966	13,377	9,503
<b>Sales within Phillips between Geographic Areas</b>			
United States	126	97	105
Europe-Africa	480	1,326	594
Other areas	21	18	2
	627	1,441	701
Eliminations (intergeographic)	(627)	(1,441)	(701)
Total	\$15,966	13,377	9,503

<b>Operating Profit</b>			
United States	\$ 1,353	1,217	969
Europe-Africa	1,471	2,048	1,264
Other areas	(60)	(10)	(55)
Eliminations (intergeographic)	(2)	(9)	(5)
	\$ 2,762	3,246	2,173

<b>Net Income</b>	\$ 879	1,070	891
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<b>Assets Identifiable by Geographic Area</b>			
United States	\$ 7,161	5,628	4,949
Europe-Africa	2,256	2,018	1,780
Other areas	203	203	128
Eliminations (intergeographic)	(31)	(29)	(20)
	\$ 9,589	7,820	6,837

<b>Export Sales</b>	\$ 481	374	309
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Depreciation, depletion, amortization and retirements on page 55 includes \$242 million in 1981, \$279 million in 1980 and \$252 million in 1979 of dry hole costs and leasehold impairment, which are included in exploratory costs and leasehold impairment in the Consolidated Statements of Income on page 44.

# Oil and Gas Operations

## Oil and Gas Statistics—Unaudited

Net Crude Oil and Natural Gas Liquids Production	1981	1980	1979	1978	1977
	Thousands of Barrels Daily				
<b>Crude Oil</b>					
United States	116	120	121	125	117
Europe-Africa	125	164	161	162	137
Other areas	5	5	6	23	11
Total Crude Oil Production	246	289	288	310	265
<b>Natural Gas Liquids</b>					
United States leaseholds	31	34	38	35	39
United States plants	121	116	104	99	99
	152	150	142	134	138
Europe-Africa leaseholds	11	13	6	—	—
Total Natural Gas Liquids Production	163	163	148	134	138
Total Crude Oil and Natural Gas Liquids Production	409	452	436	444	403

Net Natural Gas Production	Millions of Cubic Feet Daily				
United States	899	943	1,072	1,130	1,159
Europe-Africa	488	554	485	419	184
Other areas	1	—	1	—	—
Total Natural Gas Production	1,388	1,497	1,558	1,549	1,343

Average Sales Prices	1981	1980	1979	1978
<b>Crude Oil—Per Barrel</b>				
United States	\$31.85	19.78	11.85	8.49
Europe-Africa	37.97	35.70	21.70	13.52
Other areas	35.70	32.67	19.90	13.25
<b>Natural Gas Liquids—Per Barrel</b>				
United States	17.05	15.24	7.64	6.93
Europe-Africa	17.04	14.88	10.98	13.07
<b>Natural Gas—Per Thousand Cubic Feet</b>				
United States leases*	1.67	1.38	1.10	.83
United States leases and natural gas liquids plants*	1.68	1.45	1.34	.88
Europe-Africa	3.64	3.14	2.10	1.85
Other areas	2.33	1.80	1.31	—

\*Excludes sales of liquefied natural gas from Kenai, Alaska.

Average Production (Lifting) Costs*—Per Equivalent Barrel of Oil				
United States				
Including U.S. crude oil excise tax	\$ 8.12	3.96**	2.03	1.63
Excluding U.S. crude oil excise tax	3.87	2.78	2.03	1.63
Europe-Africa	5.62	4.29	3.34	2.45
Other areas	10.26	7.06	6.13	2.15

\*“Production (lifting) costs” consists of those incurred to operate and maintain wells and related equipment and facilities used in the production of petroleum liquids and natural gas. Also considered is the U.S. crude oil excise tax of \$409 million in 1981 and \$119 million in 1980. It does not include depreciation, depletion and amortization of capitalized acquisition, exploration and development costs.

\*\*Per barrel amount restated from the \$4.41 reported in 1980 Annual Report to Stockholders.



## Oil and Gas Statistics—Unaudited

December 31, 1981	Thousands of Acres	
Acreage	Gross	Net
<b>Developed Acreage</b>		
United States	1,972	1,554
Europe-Africa	317	112
Other areas	140	32
Total Developed Acreage	2,429	1,698
<b>Undeveloped Acreage*</b>		
United States		
Southeastern region	2,195	1,849
Northwestern region	12,508	6,333
	14,703	8,182
Europe (Norwegian and United Kingdom sectors of North Sea, Ireland, Italy and Spain)	5,023	2,052
Africa (Mauritania, Ivory Coast, Morocco, Egypt, Ghana, Nigeria, Sudan and Congo Brazzaville)	46,767	14,305
Asia (Indonesia, Thailand and Philippines)	31,299	18,768
Canada (Northwest Territories, British Columbia and Alberta)	5,355	1,853
Latin America (Chile)	29,080	14,540
Australia and New Zealand	21,708	4,327
Total Undeveloped Acreage	153,935	64,027

\*Phillips conducts an active worldwide exploration program in its search for oil and gas reserves. As a part of this program the company is continually acquiring, evaluating, developing and releasing acreage. Consequently, the minimum remaining terms of leases and concessions with undeveloped acreage are not meaningful.

Wells Completed*	Exploratory				Development			
	1981	1980	1979	1978	1981	1980	1979	1978
<b>Gross Wells</b>								
United States	65	32	20	10	894	784	578	505
Europe-Africa	22	16	18	28	25	30	37	11
Other areas	52	57	49	25	1	5	1	—
Total Gross Wells	139	105	87	63	920	819	616	516
<b>Net Productive Wells</b>								
United States	19	7	2	2	227	191	108	77
Europe-Africa	3	2	1	4	7	7	11	3
Other areas	11	12	8	1	1	3	—	—
Total Net Productive Wells	33	21	11	7	235	201	119	80
<b>Net Dry Wells</b>								
United States	24	14	8	4	16	18	10	17
Europe-Africa	6	3	6	4	1	2	—	—
Other areas	12	7	17	11	—	—	—	—
Total Net Dry Wells	42	24	31	19	17	20	10	17

\*Excludes farmout arrangements.

**Wells in Progress at Year-End 1981**

	Drilling		Suspended	
	Gross	Net	Gross	Net
United States	298	84	10	3
Europe-Africa	12	5	71	21
Other areas	2	1	1	1
Total Wells in Progress	312	90	82	25

**Productive Oil and Gas Wells at Year-End 1981\***

	Oil		Gas	
	Gross	Net	Gross	Net
United States	27,505	6,396	3,897	2,293
Europe-Africa	211	58	89	24
Other areas	49	23	51	22
Total Productive Oil and Gas Wells	27,765	6,477	4,037	2,339

\*Includes 1,064 gross and 438 net multiple completion wells.

**Capitalized Costs Relating to Oil and Gas Producing Activities—Audited**

Years Ended December 31

	Millions of Dollars			
	United States	Europe-Africa	Other Areas	Total
<b>1981</b>				
Proved properties	\$2,062	2,121	138	4,321
Unproved properties	1,277	23	26	1,326
Total	3,339	2,144	164	5,647
Accumulated depreciation, depletion and amortization	(1,402)	(518)	(77)	(1,997)
Net	\$1,937	1,626	87	3,650

**1980**

Proved properties	\$1,738	1,756	122	3,616
Unproved properties	645	22	24	691
Total	2,383	1,778	146	4,307
Accumulated depreciation, depletion and amortization	(1,282)	(366)	(71)	(1,719)
Net	\$1,101	1,412	75	2,588

- “Capitalized Costs Relating to Oil and Gas Producing Activities” includes the cost of equipment and facilities which support only oil and gas producing activities. Not included are investments in natural gas liquids plants and related systems as well as downstream manufacturing, distribution and marketing facilities required to convert raw petroleum liquids and natural gas into consumable products.
- “Proved properties” includes all capitalized costs related to oil and gas leaseholds containing proved petroleum liquids and natural gas reserves, wells and related equipment and facilities (including uncompleted well costs) and support equipment.
- “Unproved properties” includes all capitalized costs related to oil and gas leaseholds which are under exploration including those where petroleum liquids and natural gas were found but not in sufficient quantities to be considered proved reserves.



## Proved Reserves Worldwide—Unaudited

Years Ended December 31

	Proved Petroleum Liquids			
	Millions of Barrels			
	United States	Europe-Africa	Other Areas	Total
<b>Developed and Undeveloped</b>				
<b>1978</b>	522	826	24	1,372
Revisions of previous estimates	23	(35)	(17)	(29)
Improved recovery	17	—	—	17
Purchases of reserves in place	—	—	—	—
Extensions, discoveries and other additions	4	—	—	4
Production	(58)	(60)	(2)	(120)
Sales of reserves in place	—	(19)	—	(19)
<b>1979</b>	508	712	5	1,225
Revisions of previous estimates	36	(136)	(2)	(102)
Improved recovery	2	—	—	2
Purchases of reserves in place	—	—	—	—
Extensions, discoveries and other additions	9	6	1	16
Production	(57)	(66)	(2)	(125)
Sales of reserves in place	—	—	—	—
<b>1980</b>	498	516	2	1,016
Revisions of previous estimates	20	(59)	—	(39)
Improved recovery	4	—	—	4
Purchases of reserves in place	—	—	—	—
Extensions, discoveries and other additions	7	30	1	38
Production	(53)	(49)	(1)	(103)
Sales of reserves in place	—	—	—	—
<b>1981</b>	<b>476</b>	<b>438</b>	<b>2</b>	<b>916</b>
<b>Developed</b>				
<b>1978</b>	455	518	24	997
<b>1979</b>	441	486	5	932
<b>1980</b>	436	399	2	837
<b>1981</b>	<b>428</b>	<b>356</b>	<b>1</b>	<b>785</b>

- “Proved reserves” are those quantities of petroleum liquids and natural gas which, upon analysis of geological and engineering data, appear with reasonable certainty to be recoverable in the future from known oil and gas reservoirs under existing economic and operating conditions. As additional information becomes available or conditions change, proved reserve estimates must be revised.
- “Developed reserves” are those portions of proved petroleum liquids and natural gas reserves which are recoverable through existing well bores and production equipment and facilities.
- “Proved petroleum liquids” includes crude oil quantities attributable to fluid injection pressure maintenance programs planned for the Prudhoe Bay field in Alaska (estimated 28 million barrels) and designed into the development program for the Maureen field in the U.K. sector of the North Sea.

Years Ended December 31

	Proved Natural Gas Billions of Cubic Feet			
	United States	Europe- Africa	Other Areas	Total
<b>Developed and Undeveloped</b>				
<b>1978</b>	4,007	4,089	66	8,162
Revisions of previous estimates	(16)	184	6	174
Improved recovery	—	—	—	—
Purchases of reserves in place	1	—	—	1
Extensions, discoveries and other additions	57	—	—	57
Production	(393)	(188)	—	(581)
Sales of reserves in place	—	(72)	—	(72)
<b>1979</b>	3,656	4,013	72	7,741
Revisions of previous estimates	(80)	(422)	(16)	(518)
Improved recovery	—	—	—	—
Purchases of reserves in place	—	—	—	—
Extensions, discoveries and other additions	118	—	—	118
Production	(331)	(231)	(1)	(563)
Sales of reserves in place	—	—	—	—
<b>1980</b>	3,363	3,360	55	6,778
Revisions of previous estimates	231	(138)	(7)	86
Improved recovery	—	—	—	—
Purchases of reserves in place	4	—	—	4
Extensions, discoveries and other additions	147	255	—	402
Production	(320)	(182)	(2)	(504)
Sales of reserves in place	—	—	—	—
<b>1981</b>	<b>3,425</b>	<b>3,295</b>	<b>46</b>	<b>6,766</b>
<b>Developed</b>				
<b>1978</b>	3,887	2,635	66	6,588
<b>1979</b>	3,523	3,131	72	6,726
<b>1980</b>	3,206	3,236	55	6,497
<b>1981</b>	<b>3,246</b>	<b>3,051</b>	<b>46</b>	<b>6,343</b>

- “Proved natural gas” includes estimated reserves for which there presently is no market, as follows: 132 billion cubic feet from Prudhoe Bay field in Alaska in 1978, 1979, 1980, and 1981; 41 billion cubic feet from Ghost River field in Canada in 1978, 46 in 1979 and 1980, and 34 in 1981; and 650 billion cubic feet from fields in Nigeria in 1978, 905 in 1979 and 1980, and 1,066 in 1981.
- Prudhoe Bay reserves of 132 billion cubic feet, Ghost River reserves of 34 billion cubic feet and Nigerian reserves of 1,066 billion cubic feet are included at no value in “Future Net Revenues from Estimated Production” shown on page 64.
- “Natural gas reserves” are computed at 14.65 pounds per square inch absolute and 60° Fahrenheit.



## Costs Incurred in Oil and Gas Producing Activities—Audited

	Millions of Dollars			
	United States	Europe-Africa	Other Areas	Total
<b>1981</b>				
Property acquisition	\$ 653	1	5	659
Exploration	280	220	121	621
Development	256	255	18	529
Production (lifting)	782	450	19	1,251
Total	\$1,971	926	163	3,060
Depreciation, depletion, amortization and retirements	\$ 237	326	69	632
<b>1980</b>				
Property acquisition	\$ 158	19	5	182
Exploration	210	130	101	441
Development	157	230	10	397
Production (lifting)	398	426	13	837
Total	\$ 923	805	129	1,857
Depreciation, depletion, amortization and retirements	\$ 296	337	28	661
<b>1979</b>				
Property acquisition	\$ 242	—	1	243
Exploration	105	81	62	248
Development	114	241	13	368
Production (lifting)	220	305	14	539
Total	\$ 681	627	90	1,398
Depreciation, depletion, amortization and retirements	\$ 277	151	51	479

- “Costs incurred” includes both capitalized and expensed items.
- “Property acquisition” includes the costs of acquiring undeveloped oil and gas leaseholds.
- “Exploration” includes geological and geophysical expenses, the cost of carrying and retaining undeveloped leaseholds, and exploratory drilling costs.
- “Development” includes the cost of drilling and equipping development wells and building related production facilities for extracting, treating, gathering and storing petroleum liquids and natural gas.
- “Production (lifting) costs” consists of those incurred to operate and maintain wells and related equipment and facilities used in the production of petroleum liquids and natural gas. Also included is the U.S. crude oil excise tax of \$409 million in 1981 and \$119 million in 1980. It does not include depreciation, depletion and amortization of capitalized acquisition, exploration and development costs.

## Revenues from Oil and Gas Producing Activities—Audited

	Millions of Dollars			
	United States	Europe-Africa	Other Areas	Total
<b>1981</b>				
Sales to unaffiliated entities	<b>\$1,034</b>	<b>1,016</b>	<b>64</b>	<b>2,114</b>
Sales to unconsolidated affiliated entities and transfers to consolidated operations	<b>831</b>	<b>1,369</b>	<b>—</b>	<b>2,200</b>
Total	<b>1,865</b>	<b>2,385</b>	<b>64</b>	<b>4,314</b>
Production (lifting) costs	<b>782</b>	<b>450</b>	<b>19</b>	<b>1,251</b>
Net Revenues	<b>\$1,083</b>	<b>1,935</b>	<b>45</b>	<b>3,063</b>

<b>1980</b>				
Sales to unaffiliated entities	\$ 697	1,051	100	1,848
Sales to unconsolidated affiliated entities and transfers to consolidated operations	602	1,811	—	2,413
Total	1,299	2,862	100	4,261
Production (lifting) costs	398	426	13	837
Net Revenues	\$ 901	2,436	87	3,424

<b>1979</b>				
Sales to unaffiliated entities	\$ 502	560	45	1,107
Sales to unconsolidated affiliated entities and transfers to consolidated operations	396	1,074	13	1,483
Total	898	1,634	58	2,590
Production (lifting) costs	220	305	14	539
Net Revenues	\$ 678	1,329	44	2,051

- “Sales” excludes revenues received from operation of natural gas liquids plants and related gas systems. Transfers are valued at prices which approximate market prices.
- “Production (lifting) costs” consists of those incurred to operate and maintain wells and related equipment and facilities used in the production of petroleum liquids and natural gas. Also included is the U.S. crude oil excise tax of \$409 million in 1981 and \$119 million in 1980. It does not include depreciation, depletion and amortization of capitalized acquisition, exploration and development costs.
- “Net revenues,” the difference between total sales and transfers and production (lifting) costs, should not be equated to net income since no deduction has been made for such costs and expenses as exploration, distribution, selling, administrative, interest and income taxes.



## Future Net Revenues from Estimated Production—Unaudited

	Millions of Dollars			
	United States	Europe-Africa	Other Areas	Total
<b>Proved Reserves</b>				
1982	\$ 936	1,653	14	2,603
1983	884	1,676	18	2,578
1984	811	1,787	9	2,607
Remainder	7,051	12,412	(8)	19,455
	<u>\$9,682</u>	<u>17,528</u>	<u>33</u>	<u>27,243</u>

<b>Proved Developed Reserves</b>				
1982	\$ 956	1,731	6	2,693
1983	866	1,580	5	2,451
1984	785	1,393	4	2,182
Remainder	6,381	10,401	(13)	16,769
	<u>\$8,988</u>	<u>15,105</u>	<u>2</u>	<u>24,095</u>

- “Future Net Revenues from Estimated Production” of proved petroleum liquids and natural gas reserves as of December 31, 1981, were determined by applying guidelines established by the SEC.
- “Future net revenues” are the excess of estimated gross revenues to be received from the future sale or transfer of proved petroleum liquids and natural gas reserves as estimated at December 31, 1981, over the “estimated remaining expenditures” required to complete development of and produce such reserves.
- “Gross revenues” were determined as of December 31, 1981 by pricing estimated future years’ production of proved petroleum liquids and natural gas reserves at average prices realized during December 1981.
- “Estimated remaining expenditures” and estimated production expenses were generally based on costs experienced during 1981.
- Production forecasts, although based on the best and latest information available concerning reservoir conditions, frequently fail to correlate with actual production experience because of unforeseen reservoir conditions, time delays and other factors.
- “Future net revenues,” encumbered by estimated remaining expenditures, are not directly comparable with “net revenues” presented on page 63.
- “Future net revenues” should not be equated with future net income since such future costs and expenses as exploration, distribution, selling, administrative, interest and income taxes were not considered.

## Present Value of Estimated Future Net Revenues—Unaudited

Years Ended December 31

	Millions of Dollars			
	United States	Europe-Africa	Other Areas	Total
<b>1981</b>				
Proved Reserves	\$4,877	9,969	38	14,884
Proved Developed Reserves	4,652	8,667	12	13,331
<b>1980</b>				
Proved Reserves	5,101	11,291	35	16,427
Proved Developed Reserves	4,793	9,457	49	14,299
<b>1979</b>				
Proved Reserves	4,598	11,791	86	16,475
Proved Developed Reserves	4,311	8,376	86	12,773
<b>1978</b>				
Proved Reserves	2,984	6,917	161	10,062
Proved Developed Reserves	2,899	4,449	161	7,509

- “Present Value of Estimated Future Net Revenues” was determined by discounting “Future Net Revenues from Estimated Production” presented on page 64 at the 10 percent rate prescribed by the SEC.

## Changes in Present Value of Estimated Future Net Revenues—Unaudited

Years Ended December 31

	Millions of Dollars		
	1981	1980	1979
<b>Increases</b>			
Additions and revisions	\$ 1,257	3,114	8,174
Less related estimated future development and production costs	266	135	72
Net additions and revisions	991	2,979	8,102
Purchases of reserves in place	—	—	—
Expenditures that reduced estimated future development costs	529	397	367
Total Increases	1,520	3,376	8,469
<b>Decreases</b>			
Sales of oil and gas and value of transfers, net of production costs	3,063	3,424	2,051
Sales of reserves in place	—	—	5
Total Decreases	3,063	3,424	2,056
Net (decrease) increase	(1,543)	(48)	6,413
Beginning of year	16,427	16,475	10,062
End of year	\$14,884	16,427	16,475

- “Changes in Present Value of Estimated Future Net Revenues” from proved petroleum liquids and natural gas reserves, provides a reconciliation between the total present value of estimated future net revenues of the company’s proved petroleum liquids and natural gas reserves at the beginning and at the end of the respective years.



## Summary of Oil and Gas Producing Activities on Basis of Reserve Recognition Accounting—Unaudited

Years Ended December 31

	Millions of Dollars		
	1981	1980	1979
<b>Additions and Revisions to Estimated Proved Oil and Gas Reserves</b>			
Additions to estimated proved reserves, gross	\$1,115	405	284
Revisions to estimates of reserves proved in prior years:			
Changes in prices	893	9,041	8,800
Other	(2,394)	(7,980)	(1,916)
Accretion of discount	1,643	1,648	1,006
	1,257	3,114	8,174
<b>Evaluated Acquisition, Exploration, Development and Production Costs</b>			
Costs incurred, including impairments	495	450	343
Present value of estimated future development and production costs	266	135	72
	761	585	415
Additions and Revisions to Proved Reserves over Evaluated Costs	496*	2,529*	7,759*
Provision for Income Taxes	155	2,600	5,216
Results of Oil and Gas Producing Activities on the Basis of Reserve Recognition Accounting	\$ 341	(71)	2,543

\*Income before income taxes for Phillips oil and gas operations as determined by applying the successful efforts method of accounting, as included in the Consolidated Statements of Income on page 44, was \$2.1 billion in 1981, \$2.5 billion in 1980 and \$1.4 billion in 1979.

- “Reserve recognition accounting” (RRA) differs sharply from successful efforts accounting. The successful efforts accounting model recognizes income only at the point of production and sale of petroleum liquids and natural gas. In contrast, the RRA concept recognizes income at the point of reserve discovery or revision.
- “Additions to estimated proved reserves, gross” increased, mainly from additions and extensions for crude oil and natural gas in the United States and crude oil in the Ivory Coast and Nigeria.
- “Changes in prices” resulted primarily from substantial increases in worldwide sales prices for petroleum liquids and natural gas between December 1978 and December 1980, and for 1981 the increase was mainly higher natural gas prices in Norway.
- The “Other” 1981 revision of \$2,394 million was caused by a slight reduction in estimated proved reserves in Norway and a delay in expected production of Nigerian crude oil reserves.
- “Accretion of discount” was computed by applying the 10 percent rate to the beginning-of-year present values of estimated future net revenues.
- Costs of unsuccessful exploration activities, including impairment of leasehold acquisition costs and abandonment of suspended exploration projects, are reflected in “costs incurred.”
- At year-end, costs of exploratory wells in progress, exploratory projects under evaluation and unimpaired oil and gas leaseholds not yet reflected in the Summary pending a final decision were \$1.4 billion in 1981, \$589 million in 1980 and \$434 million in 1979. Property acquisition cost of leases held was \$1.1 billion in 1981, \$436 million in 1980 and \$347 million in 1979 net of accumulated impairment reserve of \$274 million in 1981, \$255 million in 1980 and \$177 million in 1979. The impairment provisions were \$38 million in 1981, \$92 million in 1980 and \$134 million in 1979.
- “Provision for income taxes” was determined using current tax rates for each country in which the company operates. Expressed as a percentage of “additions and revisions to proved reserves over evaluated costs,” the provision for income taxes was 31 percent in 1981, 103 percent in 1980 and 67 percent in 1979. The decrease from 1980 to 1981 is principally due to decreases in present values of estimated future net revenues in high income tax jurisdictions in 1981. The increase from 1979 to 1980 is attributable principally to higher tax rates legislated by Norway in 1980.

## Supplementary Information on Changing Prices and the Effects of General Inflation—Unaudited

In compliance with FASB Statement No. 33, "Financial Reporting and Changing Prices," the following supplementary data are provided to demonstrate the effect of inflation on Phillips.

The primary financial statements, prepared on a historical cost basis according to generally accepted accounting principles, report transactions in terms of actual dollars received or expended at the time regardless of the relative purchasing power of the dollar. In the accompanying schedules, historical dollar financial data are compared with data comprehensively adjusted under two methods—constant dollar, which gives effect to general inflation, and current cost, which gives effect to changes in prices of specific goods and services used by the company.

Under the constant dollar method, the Consumer Price Index—All Urban Consumers (CPI-U), published by the U.S. Department of Labor, is used to restate historical costs in 1981 end-of-year dollars. Otherwise, the restated amounts do not represent any measure of current values of the underlying assets, and may not be representative of inflation in the petroleum industry. Under the current cost method, current costs and prices, industry-related published

indices and internally generated indices are used, as appropriate, to translate historical costs into 1981 end-of-year dollars. Although current cost estimates are highly subjective and imprecise, they can be viewed as indicators of the impact of changing prices on the company and its operations.

Constant dollar net income and current cost net income are lower than historical cost net income. There are two principal reasons: (1) the historical dollar capital recovery charge (depreciation, depletion, amortization and retirements) is far less than either the constant dollar or current dollar cost of capital asset maintenance, and, (2) the provision for income taxes does not decline with reductions in real income before income taxes. The provision for income taxes included for both constant dollar and current cost is unchanged from the amount reported in the primary statement of income, as required by FASB Statement No. 33, except for restatement to end-of-year dollars. Effective tax rates for 1981 under both methods, 79 percent and 77 percent, respectively, are significantly higher than statutory rates since income taxes are based on reported income rather than on true economic results.

## Comparative Summary Financial Data—Unaudited

	Millions of Dollars Except Per Share Amounts					
	1981 (1)			1980 (1)		
	Historical	Constant Dollars	Current Cost	Historical	Constant Dollars	Current Cost (2)
<b>Summary Consolidated Balance Sheets</b>						
Properties, Plants and Equipment (net)	\$ 7,548	11,636	14,691	5,675	10,124	13,643
Inventories	883	1,267	2,042	696	1,097	1,703
Other Assets	2,833	3,053	2,944	3,473	3,963	3,910
Liabilities	5,783	5,830	5,830	4,907	5,399	5,395
Stockholders' Equity (net assets)	5,481	10,126	13,847	4,937	9,785	13,861
<b>Summary Consolidated Statements of Income</b>						
Revenues	\$16,288	16,821	16,816	13,713	15,618	15,601
Costs and Expenses						
Costs and operating expenses (3)	11,417	11,804	11,634	8,806	10,062	9,933
Depreciation, depletion, amortization and retirements (4)	858	1,274	1,379	838	1,331	1,558
Other	1,342	1,387	1,387	829	946	946
Provision for Income Taxes	1,792	1,852	1,852	2,170	2,475	2,475
Net Income	\$ 879	504	564	1,070	804	689

See footnotes on page 68.



## Five-Year Comparison of Selected Supplementary Financial Data—Unaudited

Years Ended December 31	Millions of Dollars Except Per Share Amounts				
	1981	1980	1979	1978	1977
Revenues					
<b>Historical dollars</b>	<b>\$16,288</b>	<b>13,713</b>	<b>9,745</b>	<b>7,422</b>	<b>6,406</b>
Constant dollars (1)	16,821	15,618	12,592	10,692	9,935
Net Income					
<b>Historical dollars</b>	<b>\$ 879</b>	<b>1,070</b>	<b>891</b>		
Constant dollars	504	804	803		
Current cost (2)	564	689	742		
Net Income Per Share					
<b>Historical dollars</b>	<b>\$ 5.78</b>	<b>7.01</b>	<b>5.77</b>		
Constant dollars	3.31	5.27	5.20		
Current cost (2)	3.71	4.52	4.80		
Stockholders' Equity (net assets)					
<b>Historical dollars</b>	<b>\$ 5,481</b>	<b>4,937</b>	<b>4,257</b>		
Constant dollars	10,126	9,785	7,672		
Current cost (2)	13,847	13,861	13,141		
Unrealized Gains Attributable to Net Monetary Amounts Owed	\$ 160	139	142		
Increase in Current Cost of Inventories, Properties, Plants and Equipment (2)	\$ 918	1,925	3,063		
Effect of Increase in General Price Level	1,227	1,534	1,406		
Current Cost over (under) General Price Level (2)	\$ (309)	391	1,657		
Dividends Paid Per Share					
<b>Historical dollars</b>	<b>\$ 2.20</b>	<b>1.80</b>	<b>1.35</b>	<b>1.20</b>	<b>.98</b>
Constant dollars (1)	2.27	2.05	1.74	1.73	1.53
Market Price Per Share—end of year					
<b>Historical dollars</b>	<b>\$ 40.50</b>	<b>58.75</b>	<b>48.00</b>	<b>31.63</b>	<b>30.63</b>
Constant dollars (1)	40.50	64.00	58.77	43.88	46.33
Consumer Price Index—average for year	272.4	246.8	217.4	195.4	181.5
Consumer Price Index—end of year	281.5	258.4	229.9	202.9	186.1

(1) Both constant dollars and current cost are stated in 1981 end-of-year dollars.

(2) Supplementary current cost adjusted data for 1980 and prior years have been restated to more nearly reflect current finding and development costs for oil and gas operations on a successful efforts basis.

(3) Includes \$293 million in 1981 and \$202 million in 1980 of geological and geophysical expenses and lease rentals, which are included in exploratory costs and leasehold impairment in the Consolidated Statements of Income on page 44.

(4) Includes \$242 million in 1981 and \$279 million in 1980 of dry hole costs and leasehold impairment, which are included in exploratory costs and leasehold impairment in the Consolidated Statements of Income on page 44.

# Consolidated Statements of Income

TEN-YEAR FINANCIAL REVIEW

Years Ended December 31

Millions of Dollars Except Per Share Amounts

	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
<b>Revenues</b>										
Sales and other operating revenues	\$15,966	13,377	9,503	6,998	6,284	5,698	5,134	4,981	2,990	2,513
Sale of Pacific Petroleum Ltd.	—	—	—	306	—	—	—	—	—	—
Other revenues (including equity in earnings of affiliated companies)	322	336	242	118	122	139	79	125	83	54
<b>Total Revenues</b>	<b>16,288</b>	<b>13,713</b>	<b>9,745</b>	<b>7,422</b>	<b>6,406</b>	<b>5,837</b>	<b>5,213</b>	<b>5,106</b>	<b>3,073</b>	<b>2,567</b>
<b>Costs and Expenses</b>										
Purchased crude oil and products	9,020	6,755	4,805	3,562	3,369	3,197	2,889	2,879	1,511	1,207
Production and operating expenses	2,104	1,849	1,402	1,117	953	736	709	668	577	504
Exploratory costs and leasehold impairment	535	481	393	243	170	176	207	163	*	*
Selling, general and administrative expenses	491	420	367	284	292	322	322	311	291	298
Depreciation, depletion, amortization and retirements	616	559	395	315	240	217	191	179	239	223
Taxes other than income taxes	649	303	150	115	104	93	94	85	69	64
Interest and expense on indebtedness	202	106	97	79	82	68	50	53	62	59
<b>Total Costs and Expenses</b>	<b>13,617</b>	<b>10,473</b>	<b>7,609</b>	<b>5,715</b>	<b>5,210</b>	<b>4,809</b>	<b>4,462</b>	<b>4,338</b>	<b>2,749</b>	<b>2,355</b>
Income before income taxes	2,671	3,240	2,136	1,707	1,196	1,028	751	768	324	212
Provision for income taxes	1,792	2,170	1,245	989	665	616	416	352	94	64
Income before extraordinary items and accounting change	879	1,070	891	718	531	412	335	416	230	148
Extraordinary items and accounting change	—	—	—	—	—	—	—	(28)	(18)	—
<b>Net Income</b>	<b>\$ 879</b>	<b>1,070</b>	<b>891</b>	<b>718</b>	<b>531</b>	<b>412</b>	<b>335</b>	<b>388</b>	<b>212</b>	<b>148</b>

## Per Average Share Outstanding\*\*

Income before extraordinary items and accounting change	\$ 5.78	7.01	5.77	4.66	3.46	2.70	2.20	2.74	1.52	.99
Net income	5.78	7.01	5.77	4.66	3.46	2.70	2.20	2.56	1.40	.99
Dividends paid per share	2.20	1.80	1.35	1.20	.97½	.87½	.80	.72½	.65	.65

## Income before Extraordinary Items and Accounting Change

As percent of average total assets	8.2	11.5	12.0	11.8	9.8	8.4	7.6	10.4	6.4	4.6
As percent of total revenues	5.4	7.8	9.1	9.7	8.3	7.1	6.4	8.1	7.5	5.8
<b>Percent of Total Revenues from Sales Outside U.S.</b>	<b>25.6</b>	<b>25.2</b>	<b>25.3</b>	<b>29.5</b>	<b>21.1</b>	<b>22.5</b>	<b>18.6</b>	<b>24.5</b>	<b>21.5</b>	<b>16.1</b>

\*Not available.

\*\*Adjusted for two-for-one stock split in 1977.



# Consolidated Balance Sheets

TEN-YEAR FINANCIAL REVIEW

At December 31

Millions of Dollars Except Per Share Amounts

	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
<b>Assets</b>										
<b>Current Assets</b>										
Cash and short-term investments	\$ 895	1,471	1,300	1,136	327	702	523	393	441	338
Accounts and notes receivable (net)	1,126	1,422	1,431	845	791	715	634	616	507	384
Inventories:										
Crude oil, petroleum products, chemicals and merchandise	602	529	479	403	385	328	340	369	239	246
Materials and supplies	281	167	125	108	113	118	129	92	50	35
Prepaid expenses and other current assets	144	105	51	69	79	41	39	28	27	17
Total Current Assets	3,048	3,694	3,386	2,561	1,695	1,904	1,665	1,498	1,264	1,020
Investments and Long-Term Receivables (net)	512	367	276	230	501	460	437	399	423	378
Properties, Plants and Equipment (net)	7,548	5,675	4,778	3,945	3,467	2,721	2,506	2,236	2,144	1,858
Deferred Charges	156	108	79	98	79	60	43	21	17	14
Total Assets	\$11,264	9,844	8,519	6,834	5,742	5,145	4,651	4,154	3,848	3,270
<b>Liabilities</b>										
<b>Current Liabilities</b>										
Accounts payable	\$ 1,375	1,313	1,243	795	672	553	526	542	382	270
Notes payable	515	8	18	2	2	6	—	1	19	6
Long-term debt and obligations due within one year	41	60	79	85	79	70	73	62	82	53
Accrued income and other taxes	1,182	1,567	1,257	827	413	429	262	265	118	113
Other accruals	124	157	81	61	61	51	49	43	44	41
Total Current Liabilities	3,237	3,105	2,678	1,770	1,227	1,109	910	913	645	483
Long-Term Debt	1,031	698	648	676	767	839	893	658	799	792
Other Long-Term Liabilities	397	270	154	89	49	1	2	2	—	—
Obligations under Capital Leases	69	75	97	121	156	176	200	221	242	—
Accrued Contingent Liabilities	235	165	135	144	94	60	66	60	90	67
Deferred Income Taxes	710	491	464	392	350	257	170	35	48	61
Other Deferred Credits	77	90	75	57	71	73	75	77	74	42
Minority Interest in Consolidated Subsidiaries	27	13	11	10	10	11	12	8	5	5
Total	5,783	4,907	4,262	3,259	2,724	2,526	2,328	1,974	1,903	1,450
<b>Stockholders' Equity</b>										
Common Stock (\$1.25 par value)	193	193	193	193	192	191	191	191	190	190
Capital in Excess of Par Value	511	511	511	511	489	472	455	451	444	441
Earnings Employed in the Business	4,892	4,348	3,553	2,871	2,337	1,956	1,677	1,542	1,326	1,212
	5,596	5,052	4,257	3,575	3,018	2,619	2,323	2,184	1,960	1,843
Treasury Stock (at cost)	(115)	(115)	—	—	—	—	—	(4)	(15)	(23)
Total Stockholders' Equity	5,481	4,937	4,257	3,575	3,018	2,619	2,323	2,180	1,945	1,820
Total Liabilities and Stockholders' Equity	\$11,264	9,844	8,519	6,834	5,742	5,145	4,651	4,154	3,848	3,270
<b>Stockholders' Equity Per Share*</b>										
	\$ 36.02	32.44	27.57	23.15	19.63	17.11	15.23	14.32	12.85	12.07

\*Adjusted for two-for-one stock split in 1977.

# Consolidated Statements of Changes in Financial Position

TEN-YEAR FINANCIAL REVIEW

Years Ended December 31

Millions of Dollars

	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
<b>Source</b>										
Funds from operations	\$ 1,954	1,928	1,592	1,084	969	803	710	728	469	367
Long-term debt	377	95	30	3	76	67	325	85	86	50
Property sales and retirements (including extraordinary items)	44	88	60	51	53	199	99	107	43	29
Sales of investments (including extraordinary items)	12	69	36	449	1	24	4	20	10	26
Capital stock	—	—	—	23	17	18	8	18	12	20
Other	22	5	23	43	18	—	1	15	29	1
	\$ 2,409	2,185	1,741	1,653	1,134	1,111	1,147	973	649	493
<b>Application</b>										
Properties, plants and equipment:										
Energy Resources	\$ 1,995	1,058	876	589	793	471	476	420	245	196
Petroleum Products	330	336	423	187	83	110	140	92	46	28
Chemicals	166	181	114	126	161	121	57	68	36	39
Other	173	91	41	38	41	14	6	7	2	2
Total properties, plants and equipment	2,664	1,666	1,454	940	1,078	716	679	587	329	265
Investments	98	147	40	19	36	36	35	9	23	6
Reduction in long-term debt	46	66	84	136	163	149	113	255	102	58
Cash dividends	335	275	208	185	150	134	122	110	98	98
Purchase of company stock	—	115	—	—	—	—	—	—	—	—
Other	44	35	38	50	34	35	29	46	(4)	8
Increase (decrease) in working capital	(778)	(119)	(83)	323	(327)	41	169	(34)	101	58
	\$ 2,409	2,185	1,741	1,653	1,134	1,111	1,147	973	649	493

## Properties, Plants and Equipment

### Gross Investment

Energy Resources	\$ 7,197	5,494	4,665	4,061	3,621	2,943	2,576	2,410	2,183	1,910
Petroleum Products	2,258	2,005	1,713	1,331	1,242	1,231	1,432	1,333	1,289	1,142
Chemicals	1,479	1,288	1,140	1,062	949	800	742	707	841	764
Other	480	319	237	202	161	142	118	110	105	98
	\$11,414	9,106	7,755	6,656	5,973	5,116	4,868	4,560	4,418	3,914

### Net Investment

Energy Resources	\$ 4,709	3,328	2,869	2,477	2,204	1,618	1,356	1,171	1,001	818
Petroleum Products	1,577	1,374	1,106	742	634	635	726	659	642	559
Chemicals	895	750	654	605	538	391	370	356	452	433
Other	367	223	149	121	91	77	54	50	49	48
	\$ 7,548	5,675	4,778	3,945	3,467	2,721	2,506	2,236	2,144	1,858



	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
<b>Operating Revenues</b>	Millions of Dollars									
Basic petrochemicals and specialty chemicals	\$1,010	925	813	478	420	417	319	424	167	119
Plastic resins	476	467	427	243	220	209	130	131	95	62
Rubber chemicals	309	296	296	254	222	190	165	173	111	93
Consumer products	302	283	229	194	174	160	152	138	110	100
Fertilizers	128	96	80	63	77	78	114	160	158	101
Synthetic fibers	97	74	77	73	76	71	92	161	151	103
Other sales and services	148	108	135	79	85	105	86	132	90	52
	\$2,470	2,249	2,057	1,384	1,274	1,230	1,058	1,319	882	630

## Other Data

Shares outstanding at year-end* (in millions)	152.2	152.2	154.4	154.4	153.7	153.1	152.5	152.2	151.4	150.8
Stockholders at year-end (in thousands)	120.4	119.9	121.2	122.6	122.3	120.2	126.9	131.6	136.0	153.3
Total payroll including employee benefits (in millions)	\$1,178	1,015	863	720	613	550	529	479	415	387
Employees at year-end (in thousands)	34.5	32.4	30.3	30.0	28.4	27.8	30.5	30.8	33.4	35.3

\*Adjusted for two-for-one stock split in 1977.

## Operating Summary

## TEN-YEAR OPERATING REVIEW

<b>Exploration and Production</b>	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
<b>Net Crude Oil Production</b>	Thousands of Barrels Daily									
United States										
Texas	36.1	39.2	42.8	45.5	48.4	50.8	54.2	56.3	57.7	57.7
Alaska	29.6	29.9	26.4	24.2	9.9	4.6	4.2	4.1	4.7	4.5
Louisiana	16.2	15.8	15.8	15.7	17.4	18.4	18.0	19.6	21.5	23.3
Oklahoma	7.9	8.4	9.0	9.8	10.1	10.5	10.4	11.8	13.7	17.5
New Mexico	6.1	6.0	5.4	5.6	6.2	6.8	6.9	7.4	8.0	9.0
Arkansas	3.9	4.0	3.9	4.5	4.7	4.1	4.1	3.1	2.4	2.7
Wyoming	2.9	2.8	3.4	4.1	4.7	4.6	4.2	4.5	2.0	2.7
Other states	13.4	14.0	14.7	15.6	15.6	15.5	16.4	16.7	12.3	12.8
Total United States	116.1	120.1	121.4	125.0	117.0	115.3	118.4	123.5	122.3	130.2
Outside United States										
Europe	100.1	130.1	119.4	116.8	93.1	92.8	63.1	11.5	10.7	11.0
Africa	24.3	33.9	41.2	44.9	43.6	38.6	33.8	38.1	35.5	23.2
Southeast Asia	5.0	4.9	6.1	18.3	5.6	—	—	—	—	—
Middle East	—	—	—	5.4	5.6	5.9	6.2	9.1	9.1	12.6
Latin America	—	—	—	—	—	—	15.5	20.8	23.1	19.5
Total Outside United States	129.4	168.9	166.7	185.4	147.9	137.3	118.6	79.5	78.4	66.3
Total Crude Oil Production	245.5	289.0	288.1	310.4	264.9	252.6	237.0	203.0	200.7	196.5

# Operating Summary

TEN-YEAR OPERATING REVIEW

Exploration and Production	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
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## Net Natural Gas Liquids Production\*

Thousands of Barrels Daily

Europe leaseholds	11.5	13.0	6.3	.2	.2	.3	.3	.3	.3	.3
Latin America leaseholds	—	—	—	—	—	—	1.8	2.3	2.3	2.4
Total Natural Gas Liquids Production	11.5	13.0	6.3	.2	.2	.3	2.1	2.6	2.6	2.7

\*See page 74 for natural gas liquids production by Gas and Gas Liquids operations.

## Net Natural Gas Production

Millions of Cubic Feet Daily

United States	899	943	1,072	1,130	1,159	1,247	1,312	1,433	1,481	1,534
Europe	488	554	485	419	184	133	125	116	94	85
Canada	1	—	1	—	—	—	—	—	—	—
Latin America	—	—	—	—	—	—	18	21	28	34
Total Natural Gas Production	1,388	1,497	1,558	1,549	1,343	1,380	1,455	1,570	1,603	1,653

## Net Oil and Gas Acreage

Millions of Acres

United States	9.7	9.2	6.2	6.1	6.0	6.6	7.2	7.2	6.8	5.8
Canada	1.9	2.2	2.7	2.6	2.1	3.2	3.4	3.5	3.2	2.8
Latin America	14.5	15.9	18.1	20.3	4.7	3.6	12.2	13.0	5.8	3.3
Europe	2.2	2.6	3.0	1.4	1.0	1.4	1.5	1.5	1.4	1.3
Africa	14.3	7.0	9.7	15.3	6.9	7.2	8.0	13.2	9.9	13.8
Middle East	—	—	—	—	—	1.7	1.8	3.0	3.0	2.9
Southeast Asia	18.8	12.4	5.9	5.3	10.2	25.0	28.6	32.1	37.3	31.0
Australia and New Zealand	4.3	2.2	1.6	22.5	23.8	23.7	1.5	5.3	6.1	6.0
Total Net Oil and Gas Acreage	65.7	51.5	47.2	73.5	54.7	72.4	64.2	78.8	73.5	66.9

## Oil and Gas Wells

Net Wells

United States										
Oil	6,396	6,233	6,104	6,141	6,210	6,202	6,191	6,184	5,806	5,795
Gas and condensate	2,293	2,237	2,185	2,164	2,132	2,129	2,122	2,086	2,006	1,945
Outside United States										
All wells	127	116	100	79	105	91	82	267	262	249
Total Oil and Gas Wells	8,816	8,586	8,389	8,384	8,447	8,422	8,395	8,537	8,074	7,989

## Well Completions

United States										
Exploratory	43	21	10	6	5	18	44	53	38	37
Development	243	209	118	94	134	161	172	136	156	86
Outside United States										
Exploratory	32	24	32	20	14	13	21	24	23	19
Development	9	12	11	3	6	8	12	16	9	4
Total Well Completions	327	266	171	123	159	200	249	229	226	146



# Operating Summary

TEN-YEAR OPERATING REVIEW

Gas and Gas Liquids	1981	1980	1979	1978	1977	1976	1975	1974	1973	1972
<b>Natural Gas Purchases</b>	Millions of Cubic Feet Daily									
United States										
Purchases from unaffiliated entities	1,220	1,112	1,145	999	1,030	1,051	1,124	1,171	1,229	1,345
Purchases from consolidated operations	422	451	509	526	557	599	630	671	639	657
Total Natural Gas Purchases	1,642	1,563	1,654	1,525	1,587	1,650	1,754	1,842	1,868	2,002
<b>Natural Gas Processed (United States)</b>	1,799	1,871	1,825	1,849	1,972	2,040	2,401	2,842	2,871	3,157

<b>Natural Gas Sales</b>										
United States										
Natural gas	784	739	727	755	828	866	964	1,043	1,155	1,288
Liquefied natural gas	107	86	99	93	99	96	102	96	93	91
Total Natural Gas Sales	891	825	826	848	927	962	1,066	1,139	1,248	1,379

<b>Net Natural Gas Liquids Production*</b>	Thousands of Barrels Daily									
United States										
Leaseholds	31.3	33.5	37.9	34.9	39.3	36.2	35.6	37.1	35.4	35.7
Plants	120.6	116.1	103.7	98.9	98.9	94.6	90.3	95.1	99.4	101.8
Total Natural Gas Liquids Production	151.9	149.6	141.6	133.8	138.2	130.8	125.9	132.2	134.8	137.5

\*See page 73 for natural gas liquids production by Exploration and Production operations.

## Petroleum Products

<b>Refinery Capacity</b>	Thousands of Barrels Daily									
United States										
Crude oil	380	425	302	323	323	323	408	408	404	404
Natural gas liquids	228	176	176	186	186	186	165	165	165	165
Outside United States										
Crude oil	—	—	—	—	—	—	—	6	4	4
Total Refinery Capacity	608	601	478	509	509	509	573	579	573	573

<b>Refinery Runs</b>										
United States										
Crude oil	285	262	287	302	297	318	368	373	395	386
Natural gas liquids	167	159	153	138	153	142	133	148	147	156
Outside United States										
Crude oil	—	—	—	—	—	—	2	1	2	3
Total Refinery Runs	452	421	440	440	450	460	503	522	544	545



<b>Petroleum Products</b>	<b>1981</b>	<b>1980</b>	<b>1979</b>	<b>1978</b>	<b>1977</b>	<b>1976</b>	<b>1975</b>	<b>1974</b>	<b>1973</b>	<b>1972</b>
<b>Petroleum Products Sold</b>	Thousands of Barrels Daily									
United States										
Automotive gasoline	209	214	220	250	237	272	304	286	299	323
Aviation fuels	23	19	24	27	26	25	24	30	27	27
Distillates	77	81	82	82	72	87	99	100	95	101
Liquefied petroleum gas	94	106	100	92	119	101	97	92	91	111
Other products	43	40	32	32	37	43	31	33	41	43
Total United States	446	460	458	483	491	528	555	541	553	605
Outside United States (including exports)	55	49	50	33	41	49	56	60	84	72
Total Petroleum Products Sold	501	509	508	516	532	577	611	601	637	677
<b>Marketing Outlets (in thousands)</b>	<b>14.3</b>	<b>12.8</b>	<b>13.4</b>	<b>13.6</b>	<b>14.8</b>	<b>15.6</b>	<b>17.7</b>	<b>18.6</b>	<b>21.2</b>	<b>23.7</b>

## Management and Board of Directors Changes

In January 1982 the board of directors elected Wm. C. Douce chairman of the board of directors and chief executive officer and C. J. Silas president and chief operating officer effective April 1. Douce, presently president and chief executive officer, succeeds W. F. Martin who retires as chairman of the board on March 31 upon reaching normal retirement age 65. Silas is an executive vice president in charge of the company's Exploration and Production, Gas and Gas Liquids, and Minerals operations. Also in January, L. H. Johnstone, executive vice president and assistant to the president, was elected vice chairman of the board of directors, effective April 1. The board also elected Silas as well as Glenn A. Cox and R. G. Wallace, both executive vice presidents, to the board of directors and

Executive Committee. These board elections were effective in January and bring the total number of board members to 17, of whom 10 are outside directors. In December 1981 W. E. Thomas, formerly an assistant comptroller, was elected comptroller, effective January 1. He succeeded Richard E. Roberson, Jr. In October 1981 J. Bryan Whitworth was elected vice president Government Relations, which is a newly created staff. He formerly was associate general counsel. In November 1981 Sloan K. Childers, formerly vice president Public Affairs, became vice president and special adviser for social responsibility and community relations. Childers was succeeded by J. Thomas Boyd, who was named manager of Public Affairs.



## Board of Directors and Principal Officers

As of April 1, 1982

### Directors

**George B. Beitzel**, Director and member of the Corporate Management Committee of International Business Machines Corporation, a manufacturer of computers and office equipment, Armonk, N.Y. (3),(5)

**Michael N. Chetkovich**, Director of External Affairs, School of Business Administration, University of California, and retired managing partner in the accounting firm of Deloitte Haskins & Sells, Atherton, Calif. (2),(5)

**Glenn A. Cox**, Executive Vice President (1)

**Wm. C. Douce**, Chairman of the Board of Directors and Chief Executive Officer (1)

**L. H. Johnstone**, Vice Chairman of the Board of Directors (1)

**E. Douglas Kenna**, Partner in G. L. Ohrstrom & Company, a private investment group, Palm Beach, Fla. (3),(4)

**C. M. Kittrell**, Executive Vice President (1)

**Melvin R. Laird**, Senior Counsellor for National and International Affairs for The Reader's Digest Association, Inc., Washington, D. C. (4),(5)

**Carol C. Laise**, Retired Director General of the U. S. Foreign Service in the State Department and former U. S. Ambassador to Nepal, Washington, D. C. (2),(3)

**W. F. Martin**, Retired Chairman of the Board of Directors

**David B. Meeker**, Chairman of the Board of Directors of Hobart Corporation, a manufacturer of food equipment and home appliances, Troy, Ohio (3),(4)

**William Piel, Jr.**, A retired senior partner of the law firm of Sullivan & Cromwell, New York, N.Y. (4),(5)\*

**C. J. Silas**, President and Chief Operating Officer (1)

**R. G. Wallace**, Executive Vice President (1)

**W. Clarke Wescoe**, Chairman of the Board of Directors and Chief Executive Officer of Sterling Drug Inc., a diversified pharmaceutical company, New York, N.Y. (2),(3)

**Dolores D. Wharton**, President of The Fund for Corporate Interns, Inc., a non-profit organization that arranges business internships for minority and women students, Albany, N.Y. (2),(5)

**Francis M. Wheat**, A senior partner in the law firm of Gibson, Dunn & Crutcher, Los Angeles, Calif. (2),(4)

### Officers

**Wm. C. Douce**, Chairman of the Board of Directors and Chief Executive Officer

**C. J. Silas**, President and Chief Operating Officer

**L. H. Johnstone**, Vice Chairman of the Board of Directors

**Glenn A. Cox**, Executive Vice President

**C. M. Kittrell**, Executive Vice President

**R. G. Wallace**, Executive Vice President

### Exploration and Production

**L. M. Rickards**, Senior Vice President

**Edwin Van den Bark**, Senior Vice President Technology & Planning

**W. W. Dunn**, Vice President Exploration

### Petroleum Products

**Gordon D. Goering**, Senior Vice President

**John E. Harris, Jr.**, Vice President Supply

**G. J. Morrison**, Vice President Marketing

**Richard I. Robinson**, Vice President Refining

### Chemicals

**R. G. Askew**, Senior Vice President

### Gas and Gas Liquids

**Paul W. Tucker**, Vice President

### Minerals

**K. L. Smalley**, Vice President

### Other Corporate Officers

**J. W. Davison**, Senior Vice President Planning and Development

**O. W. Armstrong**, Vice President Treasury

**Sloan K. Childers**, Vice President

**C. F. Cook**, Vice President Research and Development

**Kenneth Heady**, Vice President and General Counsel

**Russell L. Howard**, Vice President New York Office

**Carstens Slack**, Vice President Washington Office

**Ray G. Steiner**, Vice President Services

**W. R. Thomas**, Vice President Human Resources

**H. D. Trotter**, Vice President Engineering

**J. Bryan Whitworth**, Vice President Government Relations

**R. E. Bonnell**, Treasurer

**J. W. O'Toole**, General Tax Officer

**W. E. Thomas**, Comptroller

**Harvey W. Thompson**, Secretary

(1)Member Executive Committee

(2)Member Audit Committee

(3)Member Compensation Committee

(4)Member Nominating Committee

(5)Member Public Policy Committee

\***William Piel, Jr.**, retires as a member of the board of directors April 27, 1982.



## Board of Directors

Wm. C. Douce  
Carol C. Laise  
Melvin R. Laird



W. F. Martin  
Dolores D. Wharton  
Michael N. Chetkovich



C. J. Silas  
W. Clarke Wescoe  
George B. Beitzel



L. H. Johnstone  
Glenn A. Cox  
E. Douglas Kenna  
Francis M. Wheat



C. M. Kittrell  
R. G. Wallace  
David B. Meeker  
William Piel, Jr.





**PHILLIPS PETROLEUM COMPANY**

BARTLESVILLE, OKLAHOMA 74004

